WASHINGTON
HIGHER
EDUCATION
COORDINATING BOARD

PRELIMINARY BOARD MEETING AGENDA
State Investment Board Room
2100 Evergreen Park Drive, SW, Olympia 98504
March 25, 2004

Approximate Times		*Tab*
8:30 a.m.	Continental Breakfast and Overview of Meeting Agenda *No official business will be conducted.*	
9:30 a.m.	WELCOME AND INTRODUCTIONS	
	• Bob Craves, HECB Chair	
	CONSENT AGENDA	
	Adoption of February Meeting Minutes	**1**
	State Need Grant Permanent Rules Change *Resolution 04-02*	**2**
	New Degree Program for Approval	
	• **Master of Occupational Therapy @ EWU** *Resolution 04-03*	**3**
9:45 a.m.	DIRECTOR'S REPORT	
	• **Update on Progress of Master Plan Work**	**4**
10:45 a.m.	**Discussion: BS in Electrical Engineering @ EWU** • HECB staff briefing • Board discussion • Public comment	**5**

12:00 noon Lunch
No official business will be conducted.

1:00 p.m. **2004 Legislative and Budgets Update** **6**
HECB staff briefing

2:30 p.m. **Academic Progress Report** **7**
Resolution 04-04

3:00 p.m. **New Approach to Higher Education Accountability** **8**
HECB staff briefing

PUBLIC COMMENT

4:00 p.m. ADJOURNMENT

HECB 2004 Meeting Calendar

Date	Location
April 22, Thurs. - *Board Retreat* *No official business will be conducted.*	Residence of Fiscal Chair, Herb Simon Gravelley Lake Drive, Lakewood
May 20, Thurs.	WSU, Vancouver
June 30, Wed., 9 a.m. – 12 noon *Special Board meeting to take action on the 2004 strategic master plan for higher education. With public comment.*	State Investment Board, Olympia
July 22, Thurs.	Eastern Washington University, Cheney
Sept. 23, Thurs.	State Investment Board, Olympia
Oct. 21, Thurs.	Seattle Central Community College
Dec. 9, Thurs.	Tacoma Community College

If you are a person with disability and require an accommodation for attendance, or need this agenda in an alternative format, please call the HECB at (360) 753-7800 as soon as possible to allow us sufficient time to make arrangements

WASHINGTON
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COORDINATING BOARD

March 2004

Minutes of February 17 Meeting

HECB Members Present

Mr. Bob Craves, chair
Dr. Gay Selby, vice chair and policy chair
Mr. Miguel Bocanegra
Mr. Gene Colin
Mr. Jesus Hernandez
Ms. Ann Ramsay-Jenkins, secretary
Dr. Chang Mook Sohn
Dr. Sam Smith

Welcome and introductions
Chairman Bob Craves welcomed Jim Sulton to his first Board meeting as HECB executive director. Craves then thanked Interim Executive Director and HECB Deputy Director Ruta Fanning (who has resigned from the HECB) for her leadership in developing the 2004 Interim Strategic Master Plan. Craves read a Board resolution honoring Fanning.

Minutes of January 2004 meeting approved as amended

ACTION: ***Gene Colin*** *moved to approve the minutes of the Board's January meeting.* ***Ann Ramsay-Jenkins*** *seconded the motion.* ***Jesus Hernandez*** *requested that the minutes reflect his suggestion that Board members be invited to participate in the executive director's outreach efforts. The Board passed the minutes as amended.*

Director's report
Jim Sulton outlined the day's agenda and provided an update on his outreach efforts to members of the Legislature, institutions, and heads of other agencies.

League of Education Voters

Sulton said the League of Education Voters' proposal to create an Education Trust Fund will most likely be submitted as an initiative.

National Collaborative on Higher Education

The National Collaborative is a joint effort of the Education Commission of the States, the National Center for Higher Education Management Systems, and the National Center of Public Policy on Higher Education. Sulton said he looks forward to participating with the Collaborative, and will keep the HECB apprised of developments as it continues its work.

2004 Legislative Report

Bruce Botka, director of government relations and policy, gave an update on current legislation that would affect higher education in Washington State.

- High-demand enrollments – In his supplemental budget request, the Governor proposed adding $10 million to support enrollment in high-demand fields. The funding would pay for about 900 new FTE enrollments.
- Promise Scholarship funding and policies - The Promise Scholarship currently pays for only about 40 percent of a year's tuition at the community and technical colleges. The Governor's budget proposal would double the purchasing power of the scholarship.
- Performance contracts pilot project – Executive request legislation in the House and Senate would create a pilot project enabling policymakers to see how a performance contract might work, and which issues would have to be addressed. Both bills are awaiting action in their respective fiscal committees.
- Degree-Granting Institutions Act – Rep. Kenney has introduced a bill that would strengthen the program and include provisions to safeguard Washington consumers from "diploma mills." The House voted 94-2 to pass HB 2381.
- Transfer and articulation – The House has approved Rep. Kenney's bill that directs the HECB to convene work groups that would: (a) develop transfer degrees for specific academic majors; (b) develop a statewide system of course equivalency that would help students transfer; and (c) conduct a gap analysis of upper-division transfer capacity in the colleges and universities.
- Financial aid fund – The House has unanimously approved legislation to establish a financial aid account that would allow unspent funds from several financial aid programs to be retained for the following year. The bill has been referred to the Senate Ways and Means Committee.
- Future Teachers Conditional Scholarships and Loan Repayments - At HECB's request, this bill has been amended to consolidate several existing programs and add a loan repayment option. By creating a new account for all future teachers funds, the bill also would permit the state to use about $440,000 for new scholarships and loan repayments. Those funds have accumulated over the past 20 years in existing future teachers accounts whose use is restricted under current law.

- Branch Campuses – Unanimously passed in the House, this bill reaffirms the uniqueness of each branch campus and allows them to continue to evolve into upper division and graduate education centers.
- Affirmative action in college admissions – Gov. Locke has proposed legislation that would enable four-year universities to maintain a diverse student population without using quotas, set-asides or point values for affirmative action considerations.

Hernandez said there is significant disparity in K-12 academic achievement between specific minorities and children affected by poverty; and that the playing field is not equal for kids coming from different groups. How well do higher education institutions prepare teachers for the challenges they face in classrooms such as these? He asked if the HECB could do something to address this problem -- adding that he would be happy to see affirmative action go away as soon as disparities in K-12 achievement diminished.

Selby assured Hernandez that the HECB has been involved in K-12 issues for many years and has had an ongoing interest in teacher certification and training. She said the Board recognizes that the achievement gap is a critical issue. Past master plans, including the 2004 interim plan, address the K-12/higher education connection.

Sulton pointed out that there is a gap between K-12 and higher education that needs to close. He suggested that policy must be broad enough to include the entire transition from pre-school to college, and even graduate school. He mentioned putting a system in place, for instance, that provided course equivalencies to students in two-year colleges so they would know what it takes to transfer to a four-year college; or curriculum/career advising to students in 5th grade and middle school as in GEAR UP programs; coupled with financial aid initiatives and teacher-training programs. He referenced a $1.1million transfer initiative in New Jersey that he brought about, which put an electronic database in place to help students plot their courses from college-to-college and program-to-program in order to graduate in four years. Sulton further noted that instead of the largely horizontal conversations going on in the state, there should be more vertical exchanges and collaboration.

- Cascadia State University – This revised bill would permit the University of Washington Bothell to evolve into a four-year university. There would be no change to Cascadia Community College

Gene Colin remarked that the Bothell campus does not have highway access or room to support a full university program. In addition, he noted that many Cascadia students now transfer to the UW Bothell; he wondered what would happen to Cascadia Community College if the UWB evolved into a four-year university. "We can't lose sight of the segment of our society that relies entirely on the products of the community colleges," he said, referring to the business sector.

Sam Smith, who was involved in the group that conceived the establishment of branch campuses, reminded the Board that these campuses were put in place to work cooperatively with the two-year colleges. He said there are more options now -- early college programs or competency

based online programs for instance, that were not available then. What works for one campus may not work for another, he cautioned. Craves commented that the HECB needs to bring these ideas forward. Sulton concurred, observing that the HECB should be advocating the kind of changes that are needed through conscientious policy.

HB 3103 and the responsibilities of the HECB – Sponsored by Rep. Kenney, this legislation would clarify the role of the HECB as an advocate for students while representing the broad statewide public interest; strengthen the HECB's policy role; establish an advisory council to work with the Board; and create a new process to assess the need for additional programs and graduates to enhance the state's economic development.

2004 HECB Strategic Master Plan for Higher Education
The House and Senate Higher Education committees have approved different versions of the concurrent resolution for developing the Board's final strategic master plan. Botka said legislators have requested additional detail and specificity in the plan, including the number of students that need to be served, the capacity of current systems, and the related costs. Accountability is also a concern. All references to governance have been removed from both the House and the Senate resolutions.

Minimum College Admissions review
The HECB has statutory responsibility for establishing minimum college admission standards for four-year public colleges and universities. The current standards have not been significantly reviewed for more than a decade, pre-dating Running Start and other dual-credit programs, as well as K-12 education reform. Because college admission standards play an important role in increasing the number of K-12 students who complete a rigorous high school curriculum, which in turn increases student success in college, the 20004 Interim Strategic Master Plan includes a strategy for reviewing and revising minimum college admission standards.

Robin Rettew, associate director for policy, reported on the minimum college admissions review project, which involves meeting with education organizations all over the state and gathering feedback through a questionnaire. The review is intended to determine whether current standards are sufficient, whether changing the standards can help reduce remediation, and whether admission standards should be linked to specific components of K-12 education reform, such as the Washington Assessment of Student Learning (WASL) or Certificate of Mastery (COM).

Draft recommendations will be circulated in June.

Board comments
Selby suggested expanding the survey to include school principals. Jenkins agreed, further suggesting that the focus be in schools with a high degree of students on free or reduced lunch.

Hernandez said there are students who come in already behind in reading, writing, or math. One of the strategies some school districts use to help students catch up in these core areas is to expand the amount of time it takes the student to complete a certain subject. This means some of the students will forego elective classes to take additional courses in core areas. He sought assurance that the admission standards would reward, rather than penalize such an approach.

Smith commented on the direct correlation between family income and the probability of entering college; also between the level of family income and whether the student started a two-year or a four-year college. Craves said there are about 8,000 out of 60,000 high school graduates who could be successful in a four-year program, but don't even try because of a lack of money.

Bocanegra asked for statewide data on admission rates based on overlapping factors that include income, race and gender. Craves agreed that taking all the different factors into consideration made sense.

Sulton clarified that minimum admission standards merely serve as a launching pad for colleges to select their students. Whether or not a student gets in is based on an index, which is a composite of standardized test scores, GPA, class rank, and other variables.

Hernandez asked what the HECB can do to influence or address K-12 issues and/or add to the strategic master plan. Sulton responded that the most constructive thing to do is to set policy in these critical areas so that education becomes one system. For instance, one area of linkage between K-12 and higher education would be teacher preparation and education, as well as articulation and transfer from two-year schools to four-year schools. He said the HECB should not just identify the problem, but must put a solution in place.

Selby requested that Robin Rettew put together a summary of graduation requirements at each of the institutions to help the Board identify the critical questions and factors that need to be considered.

Academic Progress Report

Gary Benson, senior associate director, provided an overview of institutions' plans regarding academic progress initiatives. Concerned with cost and capacity issues related to "lingering students," the Senate passed legislation requiring institutions to develop policies to ensure that undergraduates complete their degrees and certificates in a timely manner. The institutions were then to report to the HECB on policies adopted to address this problem.

The following institutional representatives presented their reports:

- University of Washington – Fred Campbell (dean emeritus, undergraduate education) and George Bridges (dean and vice-provost for undergraduate education)

- Washington State University – Jane Sherman (associate vice-provost for academic affairs)
- Central Washington University – David Soltz (provost)
- Eastern Washington University – Brian Levin-Stankevich (provost)
- The Evergreen State College – Steve Hunter (associate vice-president for enrollment management)
- Western Washington University – Andrew Bodman (provost)
- State Board for Community and Technical Colleges – Nani Jackins Park (assistant director for student services)

The public baccalaureate institutions reported on actions taken and proposed to eliminate barriers to timely degree completion, including course-scheduling issues. The State Board for Community and Technical Colleges is recommending a one-year period of study prior to submitting policy recommendations for the two-year colleges.

The Board will take action on the recommendations during its March 25th meeting.

Proposed rules change – State Need Grant program

Education Services Director Becki Collins updated the Board on the proposed State Need Grant program rules change that has been filed with the Office of the Code Reviser. The Board had directed staff at a prior meeting to proceed with a State Need Grant Program rules change to allow students attending the two-year colleges to receive grants that may slightly exceed the amount they pay in tuition.

The Board also directed staff to review the change in two years to determine if it should be continued.

The meeting was adjourned at 2:50 p.m.

BOB CRAVES
Chair

James E. Sulton, Jr., Ph.D.
Executive Director

STATE OF WASHINGTON

HIGHER EDUCATION COORDINATING BOARD

917 Lakeridge Way SW • PO Box 43430 • Olympia, WA 98504-3430 • (360) 753-7800 • FAX (360) 753-7808 • www.hecb.wa.gov

RESOLUTION NO. 04-01

WHEREAS, Ruta Fanning joined the Higher Education Coordinating Board as deputy director in July 2000 and was named interim executive director in 2003, having already made her mark in state government and the higher education community, serving as vice president for finance and administration at The Evergreen State College and director of the Office of Financial Management; and

WHEREAS, The Board understands that Ruta will be somewhat embarrassed by this recognition but feels this resolution is a more appropriate means of expressing appreciation than a PowerPoint presentation, which Ruta would want to edit during the meeting; and

WHEREAS, Ruta has been instrumental in creating strong working relationships throughout the higher education community, earning the respect and admiration of her colleagues; and

WHEREAS, During her time with the HECB she became known for her unwavering commitment to good work, affinity for data, quizzical expressions when co-workers spoke gibberish, great love for data, pink editing pens, obsession with data, and musical socks; and

WHEREAS, Ruta's fondness for good, relevant data led her to advance a number of successful working partnerships – not the least of which was helping bring the National Collaborative on Higher Education Policy to Washington; and

WHEREAS, We all know that no one in government service ever really leaves; they just get new business cards – so we look forward to her return in some capacity;

THEREFORE, BE IT RESOLVED, That the members and staff of the Higher Education Coordinating Board extend to Ruta Fanning their thanks and appreciation for her exceptional contributions and many long hours of service to the agency and to the entire higher education community, and wish her continued success, health, happiness, quality time with her granddaughter, and really good data.

Adopted: February 17, 2004

Attest:

Bob Craves, chair

Gay Selby, vice chair

Gene Colin

Roberta Greene

Ann Ramsay-Jenkins, secretary

Herb Simon

Chang Mook Sohn

Jesus Hernandez

Miguel Bocanegra

Sam Smith

WASHINGTON
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March 2004

State Need Grant Rules - Adoption

Board staff recommends adoption of the proposed change to the State Need Grant rules permitting the value of the grant to exceed the value of a recipient's tuition and fees by no more than $50 for the 2003-04 and 2004-05 academic years.

OVERVIEW

One of the Board's goals for the State Need Grant (SNG) program is to fund a grant equal to the value of the recipient's tuition and service and activity fees at the public institutions, and a corresponding amount at the private institutions. At the same time, a SNG rule requires that the value of the grant not exceed the recipient's actual tuition and fee charges.

The maximum value of the SNG award is based on a full-time student's tuition and fee charges for 15 credits, but historically, public school students paid the same tuition and fees for 12 credits as they would pay for 18 credits. In this situation, no student's SNG award ever exceeded the value of his or her tuition and fee charges.

In 1999, however, the community and technical colleges began to phase in a tuition and fee structure that charges students on a credit-by-credit basis. In 2003-04, the value of the annual SNG award is $14 greater than the value of the annual tuition and fees paid by community and technical college students enrolled for exactly 12 credits.

The SNG workgroup, composed of representatives from each of the sectors, has been discussing this issue, but has not yet come to a consensus as to whether the rule should be fully implemented or permanently modified. The group did, however, recommend that the rule be modified to permit a limited exception allowing an individual's grant to exceed tuition by no more than $50. The cost to the program will be less than $40,000. The group did not see that cost as a material issue for this academic year.

In authorizing staff to pursue a rules change to put this recommendation in place, the Board mandated that the exception be only for the 2003-04 and the 2004-05 academic years. Staff filed the proposed rule on January 21, 2004, as WSR 04-03-108.

The Board held a public hearing on February 24, 2004, and accepted written testimony through the close of business on February 27, 2004. No testimony was received.

RESOLUTION NO. 04-02

WHEREAS, Current State Need Grant rules (WAC 250-20-041 [3][b]) limit the maximum value of the grant that any student receives to the value of the student's charges for tuition and fees; and

WHEREAS, The maximum value of the State Need Grant award is based on the average tuition and fees charged to a student taking 15 credits; and

WHEREAS, The community and technical college system is implementing a tuition and fee scale that charges all students by the actual number of credit hours taken; and

WHEREAS, The value of the annual 2003-04 State Need Grant award for community and technical college students who are taking 12 credits is about $14 greater than the actual annual tuition and fees charged to these student; and

WHEREAS, The State Need Grant workgroup is actively examining the policy of connecting the value of the grant to the price of tuition; and

WHEREAS, The workgroup recommended that the value of the grant be allowed to temporarily exceed the cost of tuition for individual students by no more than $50; and

WHEREAS, The Board authorized staff to file proposed rules to implement a temporary exception to the existing rule for the 2003-04 and the 2004-05 academic years; and

WHEREAS, Staff filed the notice of proposed changes as WSR 04-03-108, held a public hearing, and prepared the proposed rules for adoption;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board adopts as permanent rules the changes proposed to Washington Administrative Code 250-20-041 (3)(b).

Adopted:

March 25, 2004

Attest:

_____

Bob Craves, Chair

_____

Ann Ramsay-Jenkins, Secretary

WASHINGTON
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March 2004

Master of Occupational Therapy
Eastern Washington University

INTRODUCTION

Eastern Washington University is seeking Higher Education Coordinating Board approval to offer a Master of Occupational Therapy (MOT), beginning fall 2004, at the Cheney campus. The university currently offers a Bachelor of Occupational Therapy (BOT) that is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE). In spring 1999, ACOTE mandated that the profession require graduate-level study, with all current undergraduate programs transitioning to the graduate level by fall 2007.

PROGRAM NEED

There are two entry-level occupational therapy master's degree programs in Washington; one at the University of Puget Sound, and the other at the University of Washington. Unlike the master's degree programs at UPS and the UW, Eastern's proposed occupational therapy program would emphasize community-based practice and would focus on medically underserved communities and populations.

Working with those who are developmentally, mentally, physically, or emotionally disabled, occupational therapists help people improve their ability to perform tasks in their daily living and working environments. The demand for occupational therapists is expected to rise for a number of reasons, including:

1. The baby-boom generation's transition into middle age, with its higher rate of heart attacks and strokes;
2. Growth in the elderly population, an age group that suffers more disabling conditions;
3. Medical advances that enable more patients with critical ailments to survive, but require extensive therapy; and
4. Expansion of the school-age population and extended services for disabled students.

PROGRAM DESCRIPTION

Eastern's Bachelor of Occupational Therapy program was fully accredited by ACOTE in May 2001 for a seven-year period. Because ACOTE accredits an occupational therapy education curriculum – rather than a bachelor's or master's degree – that accreditation also would apply to the proposed master's degree program.

Therefore, most of the curriculum for the proposed MOT is included in the currently accredited program. Areas of change for the proposed MOT include advanced scholarship and practice in: 1) research, 2) critical thinking, 3) program development skills, 4) leadership skills, and 5) interdisciplinary coursework and problem-based learning. Course syllabi are currently being revised, and they will be submitted to the HECB by July 1, 2004.

The program of study consists of 131 quarter credits. If students successfully complete the academic coursework and clinical experiences in a rigid sequence, they could earn the MOT in eight quarters. Requirements to practice as an occupational therapist in the United States include passing the national examination and meeting the practice requirements of the state in which the individual chooses to work.

The EWU MOT would initially serve 22 FTE students. At full enrollment in 2008, the program would serve 105 FTE students. Existing resources associated with the BOT would support the MOT program: 4.5 FTE faculty, a full-time operations manager, and a half-time administrator.

Three student outcomes have been identified for the Master of Occupational Therapy degree:

1. Graduates would demonstrate entry-level practice competencies based on a comprehensive understanding of occupational performance.
2. Graduates would demonstrate a commitment to the common good that promotes effective, responsible, and compassionate delivery of occupational therapy services.
3. Graduates would demonstrate entry-level professional competencies in communication, as well as a commitment to professional growth through life-long learning.

ASSESSMENT AND DIVERSITY

The assessment plan for the program is exemplary. The plan incorporates measures to meet curricular, program, and student outcome evaluation. It is designed to monitor continuous improvement of the occupational therapy program. The program evaluation includes two major components to address requirements for ongoing accreditation and standards for program evaluation established by Eastern.

Recruitment, retention, and graduation of students from diverse backgrounds is a program priority. In 1999, a diversity advisory committee was organized to develop a strategic plan, and since that time, the program has designed a series of student experiences to foster an atmosphere

of invitation and success for students from diverse backgrounds. Eastern's OT curriculum addresses issues of diversity related to health care, as well as practitioners' competence in serving a diverse clientele. Additionally, the program has established fieldwork sites on two local Native American reservations, as well as in Hispanic and African American communities.

REVIEW PARTICIPANTS

Correspondence is attached from the two external authorities who reviewed the proposal: Professor Molly McEwen, from the occupational therapy department at Pacific University in Forest Grove, Oregon; and Professor Emeritus Wanda Mayberry, from the occupational therapy department at Colorado State University. Overall, both reviewers believe the proposal sufficiently meets the ACOTE standards. In addition, the proposal was shared with the other public baccalaureate institutions. Central Washington University submitted a letter supporting the proposal. No other institutional comments were submitted.

PROGRAM COSTS

The program would be supported through an internal reallocation of existing undergraduate occupational therapy program funds. The estimated cost to offer the program is about $366,355 per year, or $3,577 per FTE student at full enrollment.

STAFF ANALYSIS

The following features of the proposed MOT merit HECB approval:

1. A growing need for occupational therapists, especially in rural areas of Eastern Washington;
2. Recognition of the program as fully accredited by the Accreditation Council for Occupational Therapy Education; and
3. Exemplary diversity plan and student learning outcomes and assessment methodologies.

RECOMMENDATION

With the understanding that Eastern Washington University has agreed to provide the revised course syllabi for review by HECB staff by July 1, 2004, staff recommends that the Board approve the Eastern Washington University proposal to establish a Master of Occupational Therapy, effective immediately.

RESOLUTION NO. 04-03

WHEREAS, Eastern Washington University has requested approval to establish a Master of Occupational Therapy; and

WHEREAS, The program responds to a new requirement established by the Accreditation Council for Occupational Therapy Education mandating that the profession be educated at the graduate level; and

WHEREAS, The program will be recognized as fully accredited by the Accreditation Council for Occupational Therapy; and

WHEREAS, The program will address the demand for occupational therapists, especially in rural areas of Eastern Washington; and

WHEREAS, The diversity plan and student learning outcomes and assessment methodologies are exemplary; and

WHEREAS, Eastern Washington University has agreed to provide revised course syllabi, satisfactory to HECB staff, by July 1, 2004;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board approves the Eastern Washington University request to establish a Master of Physical Therapy, effective immediately.

Adopted:

March 25, 2004

Attest:

_____

Bob Craves, Chair

_____

Ann Ramsay-Jenkins, Secretary

PACIFIC UNIVERSITY
150 YEARS OREGON

2043 College Way
Forest Grove, OR 97116
(503)357-6151

Memorandum

To: Elizabeth Kohler

From: Molly McEwen

Date: 7/31/2003

Re: External Review of OT Proposal

Based on my personal experience in academia and curriculum development, I am most appreciative of the hard work reflected in this proposal. I commend you and your faculty and staff who worked many long hours to complete this process. I know the time and energy that a project of this scope requires and I am confident that your efforts will be well received at the state level.

I sincerely hope that the following comments will be of some assistance to you in obtaining successful approval by the HECB and ultimately implementing a quality MOT curriculum. I have organized my feedback within the five (5) focus areas provided in your letter and then provide some general comments regarding the persuasiveness of the document.

1. **Comments on the likelihood of the proposal meeting the ACOTE Standards?** I believe you'll be fine with ACOTE Standards as long as you carefully track each Standard on your syllabi. You had a solid foundation of your baccalaureate program from which to build. You have integrated the OT Practice Framework nicely in the curriculum which keeps you updated. Uniform Terminology should probably be dropped from syllabi and some of your supplemental readings may need to be revised to be in line with the practice framework.

I did not use the ACOTE Standards as a guideline for review but merely responded to your curricular content based on my familiarity with the Standards. In other words, I didn't evaluate whether each standard was met, but rather kept in mind some of the larger issues graduate OT education standards. You appear to have addressed core elements. I recommend that you go back (after you catch your breath from this process) and apply each standard to course objectives reflected in final course syllabi and actually put them in parentheses on the syllabi. It will then be easier to track them as your curriculum evolves. One concern I might have is the program evaluation piece. You may want to develop a

flow chart and be more specific when submitting ACOTE documents. For this document, I suspect you are fine.

2. **Comments on whether the proposal reflects academic rigor appropriate to graduate educational standards and academic scholarship.**
I believe that you have provided an adequate framework within which to facilitate a rigorous educational process. The rigor comes from the expectations of performance within coursework. It is somewhat difficult to determine level of rigor from a syllabus. It is my belief that high levels of rigor should evolve out of faculty's consensus of qualitative outcomes. When coursework within terms is interdependent and coursework from term to term is developmentally sequenced, success in meeting rigorous outcomes will occur.
Overall, the research sequence seems well thought out and sequenced and the performance expectation is appropriate at the graduate level desired.
Critical thinking is not explicitly clear in coursework descriptions. It seems more implicit than explicit and perhaps that is all that is necessary. Consider re-examining this expectation of your curriculum as the new FW Evaluation tool specifically addresses Critical/Clinical Reasoning. Explore whether you have sufficient integrated activities and assignments that will require generalization of knowledge/skills and developmentally sequenced critical thinking.

3. **Comments on the uniqueness of the mission and curriculum related to its value within the EWU community.** Your proposal clearly articulates the uniqueness of your curriculum in comparison to the other OT programs in the state of Washington. Consider emphasizing the "environment/context" of eastern Washington as a *place* that contributes to learning and facilitating the students meeting your unique outcomes.

4. **Comments related to the selection and emphasis of coursework required for entry-level practitioners.**
Overall, the course content is appropriate for entry-level practice. I have a few questions for you to consider regarding the sequence and emphasis of coursework. I suspect that these issues have already been resolved in your curriculum planning meetings and may just not be clear (or need to be clear) in this document.
   - Will students have sufficient knowledge and skill for OCTH 507 Analysis of OP I without OCTH 506 OP Life Span?
   - Is OCTH 523 sequenced a bit late? It appears that OCTH 530 OP Mental Health (one term earlier) will already apply the evaluation/intervention model with the guidance of specific frames of reference.
   - Where will you be covering models of practice that will incorporate the various theoretical frames of reference?
   - Consider using the models of practice (i.e. MOHO, Occ Adaptation, Lifestyle Performance, Ecology of Human Performance) as a basis for looking at

health and wellness in the OCTH 540 course. This provides the student with more opportunity for generalization and integration.

5. **Additional critiques/comments (by sections):**

I. A. Relationship to Institutional Role & Mission:

Philosophy: The approach here is similar to ACOTE requirements. In other words, provide your philosophy of the profession as well as your philosophy about education and learning. Consider clarifying your philosophy of education and learning. Currently, you indicate that you are "student-centered" (not clear what that means for you...and it might not be critical for this document) and you provide strategies for how you will teach but a clearly articulated belief about education and learning might need some further development.

Points of Congruence and Consistency: Bullet #4 ("Unique aspects...") does not seem to be a common point. Delete? Bullet # 6 ("In addition to....) needs to be reformatted as it is currently with the "common points" and it seems to reflect the program outcomes more than anything. Evaluate whether bullets # 6-12 even belong in this section.

I. B. Doc. Of Need for Program: In a time of limited financial resources, professional programs are continually needing to justify their existence (and financial support) within the institution/community. This proposal does provide evidence in support of maintaining a professional educational program at EWU; however, my understanding is that the primary intent of this proposal is to substantiate the initiation of a graduate OT curriculum (right?). Graduate programs are more costly and are scrutinized even more intensely. If justification of a transition to a graduate program is your priority, then I suggest that you re-examine the *I.B. Documentation of Need for Program* section in order to justify the resources and support for a more costly graduate program and the benefit to the institution and to the community. I suggest you re-organize your *Documentation for Need* section to clearly persuade the HECB of the need for a graduate OT curriculum in addition to the need to continue to support an OT curriculum (at any level). You compiled strong data but it doesn't seem clearly linked to your intent in transitioning into a graduate program. In other words, I think all the information is present, but needs to be re-organized to more persuasively communicate the need for your graduate program.

It is not clear how I.B.5. fits into the intent of the I.B. section? How does it justify the need for the program? Or is it more related to your belief about how humans learn (philosophy of education)?

I.B. 6. Seems to be an appropriate heading but the content is not clearly supportive to the development of a graduate program. Consider focusing on the development of new service delivery models and services within the rural areas and the application of research strategies to measure outcomes and effectiveness of those programs? EWU has a unique opportunity to lead the

nation in the development and evaluation of the effectiveness of rural based occupationally based health care programs. Graduate skills are necessary for this to happen---both through your students and ultimately, your alums.

I.B.7.—again, I would emphasize how graduate skills will assist in the support of the states desires to provide rural health care. I think the graduate program needs to be supported in more ways than just a mandate from ACOTE---although that is a persuasive point.

I.C. Relationship to Other Institutions: Clearly written. Consider emphasizing "context/environment" inasmuch as your uniqueness requires a community context for success.

II. Program Description It's difficult for me to provide much feedback on some of this due to not having a sense of the curriculum "design". However, I have provided some thoughts for you to ponder.

Preamble: You have identified student learning to promote scholarship and performance in the areas 1)research, 2)critical thinking; 3) program development; 4) leadership skills; and 5) interdisciplinary. Your mission (page 1) describes some key concepts of your curriculum: general practice competencies in a variety of practice environments (especially in rural, under-represented and under-served communities), leadership, creative/critical thinking, interdisciplinary. Cross check to assure consistency in pulling these concepts through. Should each of these core concepts be present within each of the three outcomes?

II. A. Goals, Objectives, and Student Learning Outcomes.
You have outlined three basic outcomes and introduced some new focus concepts: *Occupation Based Practice* and *Communication and Professional Behaviors*. Do you feel that you need to address these earlier? In the mission or preamble of the curriculum description?

Student Outcome I: Occupation Based Practice Consider explicitly including the use of research in practice.

Miscellaneous typos, formatting, etc. While I didn't' spend much energy focusing on this aspect of the proposal, there are a few noted that may assist you in your editing:

- Page 1 (first paragraph) indicates the inception of your program was in 1999. Page 4 indicates 1998.
- There are several typos so I encourage the use of spell-check and a final "reader".

Please feel free to contact me if you have any questions or need clarification on any comments. Because I am on a sabbatical, I will not be available at my campus phone nor will I be receiving e-mail (until we get www connection at home). Please feel free to contact me at my home phone (503)628-0425. I wish you the best in

this final process. And, I hope both you and your faculty found some quality down-time this summer to relax and rejuvenate prior to another intense academic year. My best to you all.

500 Tulane Dr.
Ft. Collins, CO 80525
30 July 2003

Elizabeth Kohler, EdD, OTR/L
Program Director, Department of Occupational Therapy
Eastern Washington University
310 N. Riverpoint Blvd., Box R
Spokane, WA 99202-1675.

Dear Dr. Kohler,

Here is my review of your program, and I apologize for pushing the time limit. My first comment is that, on paper, the program looks like an excellent one that is poised to offer skills to the profession that will be very much needed as OT takes its rightful place as one of the best ways to serve human beings who have special needs.

I was asked to respond to some specific areas, so will do that now.

1. "...comment on the likelihood of the Proposal continuing to meet educational standards in the field of Occupational Therapy?"
   I used the OT Standards Evaluation form, that you so thoughtfully included, to review my findings. I concentrated on the content and level of the program, rather than the physical aspects of the facilities or the policies not directly related to that level or content. Your program seems to have intentionally, directly, and with careful planning and thought, covered all the aspects required by ACOTE. If the proposal, as written, can be carried out in reality, it should prove to be an excellent graduate level program.

2. "...comment on the Proposal's academic rigor..."
   I have two concerns, neither of which are insurmountable, but both of which, I think, should be thought about and openly addressed.

   The first deals with making sure that the student endeavors are truly expected at the graduate level. The students will be taking 18 credits most semesters. This is a heavy load, if one expects 3 hrs of preparation each week for each credit hour in class, and recognizes that quite a few students also have families, jobs, etc. which can work to prevent total dedication to the curriculum. Also, quite a number of the classes appear to be similar in title and content to what has been offered on the undergraduate level. This, in an of itself, is not a problem, but often the mind-set of the faculty has been on undergraduate expectations and, unconsciously, can influence the demands made upon the students (and the faculty) unless real effort is expended to assure that the students are going beyond the undergraduate level (particularly in the critical

thinking, interpersonal interactions, and evidence of written and oral communication skills).

Along with the above, the fact that you are still going to have a bachelors level class starting at the same time as the master's degree program is starting, may present some horrific challenges. Will the students be together in classes? How will you manage grad level expectations if you do so? Have you thought about having the last undergrad class enter in 2003, and the first graduate class in 2004? That way you would be able to tailor the content to the students a little easier, I think.

The second deals with the faculty load. Assurance that the classes are truly graduate level will demand a lot of effort on the part of the faculty. If your estimated enrollment figures are correct, the program will be in danger if there are only five bodies to do almost all of the work. Fortunately, two of those people have doctoral level degrees. Unfortunately, the other three do not. Two of those three are currently in doctoral programs, which, I think, is an essential step, but the demands that it places on their time is immense, especially since they also have the heaviest teaching loads. If someway could be found to increase the number of faculty (with already earned doctoral level degrees, I think), it would help immensely in preventing burnout, or lapsing to an undergraduate level of thinking and acting.

Another element; Faculty who are supervising small group research often find that the time demands are just as great or greater than for individual research projects. Part of this may be due to the fact that often the project is a faculty initiated one, so there is a problem of student ownership of the project. Part of the time demand is that there are several personalities to reconcile, and this may take some doing so that you end up with a unified project (in writing as well as performance).

I do need to add that the correct words are all there on paper. If they can be carried out, the result will be well-prepared entry-level graduates.

3. "...uniqueness of the mission and the curriculum regarding its value within the EWU community as well as in the pre-service preparation of entry-level practitioners".

I think that the focus you have taken, (that is, to try to recruit from underserved areas, to educate toward non-traditional (as well as traditional, of course) jobs, to emphasize the skills (e.g. negotiation, interdisciplinary collaboration, entrepreneurship, grant writing) that one does not get on the undergraduate level), is one of the truly great strengths that your department has. The non-traditional service areas will probably be the most valuable ones in the future of health care in the USA and your students may be among the best qualified to serve in those areas.

4."...do the courses appear to address, with appropriate selection and emphasis, the necessary competencies required of entry-level practitioners. (credits and contact hours).

As I stated above, the program is a heavy one. If the students can actually do it, it has all the elements of preparation that they might need. The only way that I could think of to get around the problem, is to offer some of the basic courses (e.g. neuro., anatomy, human disease) as prerequisites, before entry to the program. If, however, you think integration with the other OT course that are offered the same semester is important, then the courses need to be taught in that manner.

There are some aspects of the curriculum that appear to be very strongly oriented toward the old medical model and the traditional concrete divisions of Physical vs Psychsoc. This seems to be a bit at odds with your very inventive and strong emphasis on the more holistic aspects of looking at the services we offer, but it may be the only (or the best) way for the program to be offered in your setting.

The objectives for each course are ambitious enough to easily fill all the credits assigned to them. The redundancy concerning some of the cognitive, affective, and performance goals is good in terms of assuring that the students do learn what is expected; However, if there is a chance to slow down and look at all of them, in the future, you might be able to determine which of the skills are truly being increased (rather than re-run) from course to course, and which might be able to be assigned to a lesser number of courses and still be covered adequately.

5. "Additional critiques etc."

I have indicated above what I feel are important points about the proposed program. I only have a few picky things.

OCTH 501: Is there really a developmental focus? The course schedule did not lead me to believe so. Perhaps I just didn't see it.

OCTH 503: The extra credit could do a great deal towards the advanced skills of critical thinking or other skill enhancement. I hope it can be used in that way. (See my comments on personal portfolio later)

OCTH 505: I think it is good to see that one course is building on the skills presented in a concurrent course.

OCTH 509: A couple of interesting typos on page 2. On page 3, I see 175 points in one place, and 500 in another.

OCTH 512: what is the place of serial casting in the Fieldwork II Seminar)? I didn't get the connection

OCTH 521: An interesting typo on page 2

OCTH 523: It seems that most of the actual tests offered are adult-oriented. Is this intended?

OCTH 511: What is the relationship of leadership to splinting lab?

OCTH 533: On goal 4 of the performance domain, what about documentation in community settings?

OCTH 542: An interesting type on page 2. Also, I see the COTA mentioned in the objectives, but not reflected in the calendar. It may be there, but not very evident.

OCTH 544: Seems really good. I hope the students can realize the importance.

OCTH 603: I wasn't sure whether the poster/power point preparation was to be used at the oral defense, or whether the defense was based on the written report. It seems that a presentation would be in order, whether or not they were part of the Student Symposium (perhaps you could hold a "research" day of your own, and the first year students could see what the second year students have done. Maybe even have "judging" by OTRs or faculty members outside the department, and maybe even awarding of prizes. ....just a thought!)

PERSONAL PORTFOLIO. One way to try to make sure that the student is actually increasing abilities is to have, perhaps prior to first class meeting of their first semester, an assignment to have them evaluate themselves on the important skills (Research, Critical Thinking, Program Development, Leadership, Interdisciplinary collaboration, Writing, Speaking). There are some formal instruments out there, and others (perhaps more easily) could be devised by the faculty to tap what they really want. The student could keep a portfolio of work showing that they are improving, (or that they don't need further work ☺). It would also serve them (modified, of course), when they are job hunting and as a basis for their portfolio for NBCOT continuing competency.

One last comment: I commend the faculty on all the work that you have done; the proposal and syllabi show a lot of thought and consideration. I wish you the very best as you go forward; I think you will do a fine job, and will offer what few (if any) other programs can. Thanks for letting me be a part of your development.

Sincerely,

Wanda (Mayberry)

Wanda Mayberry, PhD,: Emeritus Faculty, Occupational Therapy Dept., Colorado State University.

WASHINGTON
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2004 Strategic Master Plan for Higher Education
Preliminary policy proposals
Discussion draft for HECB meeting – March 25, 2004

This document contains preliminary descriptions of the significant policy proposals that are being considered for the final version of the Higher Education Coordinating Board's 2004 Strategic Master Plan for Higher Education.

Goal 1: Increase opportunities for students to earn degrees – increase by about 20 percent the total number of students who earn college degrees and complete job training each year.

Goal 2: Respond to the state's economic needs – expand opportunities in high-demand fields; increase state funding for university research; and increase the number of students who complete job training programs and the proportion of basic skills students who demonstrate skill gains.

Policy Proposals

1. Enrollment allocation initiative – There is a strong legislative expectation that the board will recommend how much new enrollment capacity is needed; when and how it should be apportioned based on geography, educational sector, state economic needs and other factors. Cost estimates are expected to accompany the cost of the components of the enrollment recommendation. This directly supports Goal 1 by providing the capacity for more students to earn degrees and Goal 2 by addressing economic needs.

2. Regional planning models – The Legislature supports the board's commitment to identify regional higher education planning and decision-making models that promote collaborative, multi-institutional working relationships to respond to statewide goals and priorities. Currently, higher education planning models exist in the Spokane and Vancouver areas, and perhaps elsewhere. Responsibility for acting on this recommendation would rest with colleges and universities in each region. This directly supports Goal 2 by identifying regional needs.

3. Increase degrees in high-demand fields – The board will recommend that a portion of all new enrollments be dedicated to competitive grants in high-demand fields, with funding to reflect the higher cost of most high-demand programs. The board also will propose an ongoing method of identifying high-demand fields and programs based on student and employer needs and master plan goals. This directly supports Goal 2 by identifying and responding to the economic needs of the state.

4. Flexibility for branch campuses and CTCs – The board will propose a system under which branch campuses could offer selected lower-division classes, doctorate programs, and-or evolve into four-year universities, and community and technical colleges could offer selected upper-division courses, baccalaureate degrees, and-or become four-year institutions. This supports both master plan goals by promoting students' degree completion and addressing regional needs.

5. Fund student success, not enrollment – A new higher education budgeting model will be developed, based on the number of degrees conferred (outcomes) instead of the current enrollment-based model (inputs). This will directly address Goal 1 for state budgeting and accountability purposes.

6. Financial aid – The board will propose a new financial aid program to serve students who work while attending college part-time. The board also will promote the use of existing aid programs to advance the goals of the master plan and will estimate the cost of achieving the board's service goals for the State Need Grant (65% MFI, 100% of tuition) and Promise Scholarship (full funding of community and technical college tuition for two years). This will assist in accomplishing Goal 1 and Goal 2 by enabling students to earn degrees and respond to the state's economic needs.

7. Statewide articulation and transfer – The board will address creation of a unified statewide system to help students understand transfer requirements and successfully articulate between institutions. This approach would be consistent with the direction to the HECB in HB 2382 to create a statewide course equivalency system. This will improve efficiency in the transfer process directly aiding Goal 1.

8. Three-year baccalaureate degree pilot – The board may propose incentives to universities that enable students to receive a baccalaureate degree in three years. There would be a strong incentive for the four-year institutions to pilot this approach if the state's funding system rewarded degree completions. Having such degree options will increase the opportunities for students to earn degrees and thus aid Goal 1.

9. Align high school graduation and college admission requirements – The HECB has begun to review the state's four-year college minimum admission standards. Alignment of K-12 graduation and college admission standards is a significant consideration in that project. Such alignment would improve the efficiency of the higher education system and help to attain Goal 1.

10. Reduce remedial instruction for recent high school graduates – The board will propose specific state actions to increase the number of recent high school graduates who are capable of performing college-level work without remediation when they enroll in a post-secondary institution. Again, this will improve the efficiency of students being able to earn degrees and will promote Goal 1.

11. New accountability/performance measurement - The HECB and the Legislature have identified the need for a new accountability system linked to the goals and strategies in the master plan. This proposal would be consistent with a number of current initiatives, including the work of the National Collaborative for Post-Secondary Education, the Governor's Priorities of Government exercise, and HB 3103, which includes specific direction in this regard. This will improve the state's ability to measure progress toward the overall master plan goals and the effectiveness of specific strategies.

12. Comprehensive data and information management -- The HECB should be the state's primary source of student-focused information about higher education. HB 3103 as passed by the Legislature describes a process for this to take place. The board's plan will take into account the strengths and weaknesses of existing systems of data collection and information sharing. This will support the state's performance measurement requirements and the evaluation of the success of the master plan and its components.

WASHINGTON HIGHER EDUCATION COORDINATING BOARD

DRAFT – March 25, 2004

2004 Strategic Master Plan
Preliminary Schedule for Development of Final Plan

Key Dates:

May 6	HECB Policy Committee considers draft of final plan
May 20	Board meeting, WSU, Vancouver – Board discussion and public comment on draft of final plan
May 24-June 16	Public hearings, Seattle and Spokane
June 30	HECB Policy Committee approves final plan for consideration by full Board
July 22	Board meeting, EWU, Cheney – Board adopts final plan
Aug. 20	Board delivers final plan to Legislature and Governor

Key Tasks	**Completion**
Staff sends draft plan to HECB Policy Committee	May 4
HECB Policy Committee approves draft plan	May 6
Draft plan distributed for review by interested parties	May 10
Board discussion and public comment on draft plan during regular meeting at WSU Vancouver	May 20
Public hearings on draft plan – Seattle and Spokane (specific dates to be announced)	May 24 to June 16
Staff sends revised draft to HECB Policy Committee	June 23
HECB Policy Committee approves final plan for consideration by full Board	June 30
Master plan materials distributed to Board members and interested parties	July 14
Board adopts final plan during regular meeting at EWU	July 22
Staff submits final layout of plan to state printer	August 3
Board delivers final printed plan to Legislature and Governor	August 20

WASHINGTON
HIGHER
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COORDINATING BOARD

March 2004

HECB Roles and Responsibilities:
Major provisions of Substitute House Bill 3103

As passed March 10, 2004 by the Washington State Senate and House of Representatives

- A 10-member **HECB advisory council** of education leaders and faculty representatives is created. The council will meet at least quarterly with the HECB. Members include:

  → The Superintendent of Public Instruction;
  → A research university representative;
  → A regional university representative;
  → A community and technical college system representative;
  → A representative of the independent four-year colleges;
  → A representative of the private career schools;
  → A faculty representative from the four-year universities;
  → A faculty representative from the two-year colleges;
  → A representative of the State Board of Education; and
  → A representative of the Workforce Training and Education Coordinating Board.

  The superintendent's term will be concurrent with his or her term of office. Other advisory council members will serve two-year terms.

- The **board's purpose** is to:

  → Develop a **strategic master plan** every four years and make annual progress reports on its implementation;
  → Develop and recommend **statewide higher education policies**;
  → Administer state **financial aid** programs;
  → Serve as an **advocate** for students and the statewide higher education system;
  → Represent the **broad public interest** over the interests of individual colleges; and
  → Coordinate with other agencies to create a **seamless education system**.

- **Policy functions** include strategic planning; budget recommendations; degree approval; statewide transfer and articulation policies; accountability; development of the higher education cost study, and administration of a competitive high-demand enrollment process that would include proposals from individual four-year public and private colleges and universities.

- The board will perform **periodic analyses** of tuition, financial aid, faculty compensation, funding, enrollment and other policy issues.

- A new **needs assessment** process will be developed to examine the need for new degrees, new instructional locations, and opportunities to consolidate or eliminate programs. The final legislative supplemental budget includes $205,000 for this work during the 2003-05 biennium.

- Every two years the HECB, SBCTC and WTECB will work together to report on the number and type of higher education degrees needed to meet **employers' needs.**

- The board, working with a research advisory group, will identify the **data and information** it needs to fulfill its responsibilities and determine the most cost-effective way to gather reliable, consistent information. Specific protocols will be developed to safeguard student privacy while making student data available for research.

- Administration of the **Displaced Homemaker** program is transferred to the SBCTC, effective July 1, 2005.

- The board is required to develop an **accountability** monitoring and reporting system linked to the state's long-term higher education goals. The HECB must also develop indicators and benchmarks to measure its own performance, and that of various advisory groups.

- The individual public **four-year universities** and the **State Board for Community and Technical Colleges** are directed to develop strategic plans that implement the vision, goals, priorities and strategies of the statewide master plan.

- The board will **review institutional strategic plans** for consistency with the statewide master plan and will provide **annual progress reports** on implementation of the plan by the state and the colleges and universities.

Bruce Botka -- 360-753-7811 -- bruceb@hecb.wa.gov

WASHINGTON
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COORDINATING BOARD

March 2004

Bachelor of Science in Electrical Engineering
Eastern Washington University

INTRODUCTION

Eastern Washington University (EWU) seeks Higher Education Coordinating Board (HECB) approval to offer a bachelor's degree in electrical engineering through two similar, but different, methods of delivery. In fall 2004, the university proposes to offer the upper division component of a 2-plus-2 partnership program at North Seattle Community College, with the community college delivering the lower division courses. In fall 2006, the university would establish a complete four-year program at the main campus in Cheney.

The university's proposal marks the first time in Washington that a regional comprehensive university has sought state approval for a bachelor's degree program in electrical engineering. The university's eligibility was made possible by the enactment, in 2003, of legislation that permitted all Washington public universities to offer electrical engineering programs, subject to HECB approval. Previously, electrical engineering was among the "major lines of instruction" reserved in state law for the University of Washington and Washington State University. Both of the public research universities offer bachelor's programs in this field. Several private colleges and universities in Washington also offer electrical engineering degree programs.

Beginning with introduction of the legislation that set the stage for EWU's proposal, the question of whether the state needed a third publicly funded electrical engineering program has been seriously debated, with strong opinions on both sides.

In this context, the purpose of the Board's consideration at the March 25 meeting is to review the proposal with Board staff, receive public comment, and establish a timeline and process leading to final action on EWU's request at the regular Board meeting May 20, at WSU Vancouver.

This briefing document describes the proposal, summarizes the responses of interested parties, and lays a foundation for discussion at the March 25 meeting. Appendices include statements by reviewers commissioned by EWU, supplemental correspondence between the HECB and EWU; selected letters of support for or opposition to the project; and employment data from the state Employment Security Department.

OVERVIEW: HECB EVALUATION OF NEW DEGREE PROPOSALS

Decisions about the academic offerings of public colleges and universities are among the most important actions that the Higher Education Coordinating Board undertakes. Considerations relate directly to the opportunities available to students, the ability and responsibility of universities to provide high-quality instructional programs; the state's efforts to address statewide economic, educational and cultural priorities; and the requirement that citizens' tax dollars are invested wisely.

State law directs the HECB to represent the broad public interest above the interests of individual institutions. Therefore, the Board's highest obligations are to the students and taxpayers of Washington. The Board's review and approval process is designed to ensure programmatic quality, fairness to the proposing institution and all interested parties, and responsiveness to student and state interests. The Board strives to:

- Review all proposals for new degree programs fairly, thoroughly, and consistently;
- Ensure students who enter any new degree program can do so with confidence in the quality of instruction; and
- Fulfill the Legislature's charge to diligently oversee the investment of state funds for higher education, and to guard against unnecessary duplication of offerings among the colleges and universities in Washington State.

HECB PROGRAM APPROVAL GUIDELINES

The Board evaluates and approves new degree programs in accordance with the statutory direction in RCW 28B.340, as described in its January 2001 Guidelines for Program Planning, Approval and Review. To earn the Board's approval, an institutional proposal, informed by staff analysis, external review, and public comment, must document the following elements:

1. Clear evidence of state need for the program and consistency with the university's mission;
2. A development plan and proposed budget, including the amounts and sources of all funds;
3. Assurance that external and internal reviews attest to the quality of the program;
4. Avoidance of unnecessary duplication of existing programs;
5. A plan to assess overall program progress and effectiveness, including student achievement and learning outcomes;
6. A plan to expand opportunity for students from segments of the state population that have been historically under-represented in college participation; and
7. The appropriate use of technology to support instruction.

BACKGROUND

At the request of Eastern Washington University and the Washington Council of the AeA (formerly known as the American Electronics Association), the Governor and the 2003 Legislature enacted House Bill 1808, allowing all public Washington universities to offer electrical engineering programs, subject to the approval of the HECB. Previously, only the state's two public research universities were allowed to offer such degrees. Representatives of North Seattle Community College, the State Board for Community and Technical Colleges, and the University of Washington also endorsed the bill during legislative hearings.

As passed by the Legislature, HB 1808 included criteria to be employed by the HECB in reviewing electrical engineering program proposals. Some of these criteria duplicated existing HECB review elements, while others called for additional information and analysis. Governor Locke vetoed a section of the bill concerning review criteria, citing, in part, the existing statutory requirement for HECB program approval. However, in his veto message, the Governor supported the use of the evaluation criteria in the vetoed section of the bill. Shortly thereafter, two legislative leaders, Rep. Phyllis Kenney, chair of the House Higher Education Committee, and Rep. Don Cox, the committee's ranking minority member, wrote a letter to the Board, asking that the criteria from the vetoed section of HB 1808 be used to evaluate the degree proposal, and that the review should be based on information from multiple sources, not just that provided by the proposing institution. The following evaluation criteria were included in the bill:

- Detailed evidence of why the new program is justified, including size and scope of student, employer, and community demand for the program;
- The feasibility of using existing public and private capacity for the program and comparisons of the state cost of providing existing and proposed capacity;
- Projected future enrollment and substantiation of the enrollment estimates; and
- Additional information requested by the HECB regarding demand, need, and cost-effectiveness of the program.

The bill also directed the HECB to submit a complete analysis to the legislative higher education committees before taking final action on the proposal.

SUPPLEMENTAL GUIDELINES FOR ELECTRICAL ENGINEERING PROPOSALS

The HECB agreed to implement a program review process that reflected the evaluation criteria contained in HB 1808. As such, during fall 2003, HECB staff developed supplemental guidelines for electrical engineering degree proposals from comprehensive universities, in consultation with Eastern Washington University and the state's other public and independent institutions, the State Board for Community and Technical Colleges, the Legislature, the Governor's Office, and other interested parties.

The supplemental guidelines require the sponsoring institution to provide the following information:

1. Program accreditation requirements that are based on the national accreditation standards established by the Accrediting Board for Engineering and Technology (ABET);
2. Identification of jobs that typically require an undergraduate degree in electrical engineering;
3. Identification of the community colleges whose graduates will be recruited or are expected to enroll in the proposed program;
4. Documented employment demand for graduates of electrical engineering programs in the past five years, and projected demand during the next five years;
5. Documented demand in the state for the program in terms of economic development;
6. A comparison of electrical engineers' salaries in the state with those in other regions of the country as one indicator of relative work force supply and demand; and
7. Facilities and capital costs and non-recurring budget start-up costs by area of expense.

The supplemental guidelines require HECB staff to collect the following information:

1. The number of students who have enrolled in and graduated from existing undergraduate electrical engineering programs offered by Washington public and independent institutions;
2. The number of currently enrolled community college students who are taking the pre-requisite courses for a major in engineering;
3. The number of Associate of Science-Transfer, Track 2 (engineering and physics) graduates from each community college;
4. Average annual program costs and faculty-student ratio for each existing electrical engineering program offered by a Washington college or university; and
5. Identify the number of non-U.S. citizens working in occupations related to electrical engineering in Washington on H-1B visas and other federal employment visas.
6. For each undergraduate electrical engineering program offered by a Washington public or private institution, identification of:
    a. Capacity to serve additional students within current resources;
    b. Factors limiting enrollment capacity; and
    c. Non-recurring operating costs for start-up or expansion.
7. Information about institutions' plans to expand existing programs or restrictions that would prevent expansion; and state and local capital and operating costs associated with expansion.

EASTERN WASHINGTON UNIVERSITY PROPOSAL: BSEE

Overview

On December 1, 2003, Eastern Washington University submitted a proposal to offer a new Bachelor of Science in Electrical Engineering degree (BSEE), beginning fall 2004, as the upper division component of a 2-plus-2 program at North Seattle Community College, and in fall 2006, as a four-year program at the main campus in Cheney. The university said the program at North Seattle would initially enroll 25 full-time equivalent students and grow to 40 by 2008, while the Cheney program would initially enroll 20 FTE and grow to 30 FTE by 2008.

On March 3, HECB Executive Director James Sulton Jr. met with EWU President Steven Jordan and his staff at Cheney to learn more about the proposal. As a result of this discussion, EWU provided HECB staff with additional information to complement the initial proposal. **Appendix 1** includes this supplemental information.

(A copy of the original proposal is available upon request at the HECB office in Olympia.)

Relationship to Role and Mission

In its proposal, Eastern Washington University said it would achieve its mission by, among other things, "providing high-quality integrated, interdependent programs that build on the region's assets and offer a broad range of choices as appropriate to the needs of the university's students and the region." The university's mission statement indicates in part that the college, while based in the Spokane metropolitan area, will maintain learning centers elsewhere in the state.

Prospective Student Interest

EWU cites evidence of student interest in the program at North Seattle CC as follows:

- The University of Washington turns away about 200 qualified applicants every year, and EWU said many of these students may wish to attend another electrical engineering degree program at a nearby public university.

- The State Board for Community and Technical Colleges (SBCTC) reports that, each year about 100 students from community colleges transfer into electrical engineering programs at UW and WSU. In addition, the SBCTC reports that in 2001, Washington State University researchers conducted a telephone survey of 935 Bellevue Community College graduates. These students, who had not yet transferred, ranked electrical engineering sixth among their most popular major of interest. Some 15 students were identified in the survey as being enrolled in electrical engineering or pre-engineering programs. Another five students said they intended to transfer into EE degree programs, most at the University of Washington. Based on this survey, the SBCTC estimates about 100 students a year would seek entrance to a publicly funded electrical engineering program, but are either not admitted to the program of their choice or do not apply because of the highly competitive nature of the program.

- According to SBCTC, for every three students currently accepted for transfer into an electrical engineering program, another student is looking for a program spot that meets his or her need. Also, transfers from community colleges to four-year colleges are expected to grow by 5 percent per year through 2010. Given this trend, SBCTC forecasts 36 community college transfer students who would enroll in the NSCC program in 2004, and 17 who would enroll in the Cheney program in 2006.

As requested by HECB staff, SBCTC also reported that in 2002-2003, 475 students had completed the differential equations course that is taken almost exclusively for pre-engineering and pre-physics majors, and since the 2001-02 academic year, 529 students had earned an Associate in Science degree for transfer to an engineering, physics, or computer science program at a four-year college or university.

Employer Needs

More engineers work in the field of electrical engineering than in any other related occupation. Electrical engineers deal with the controlled application of electricity to solve problems. They may work with major power generating plants or tiny transistors, computers or radar, motors or lasers, power lines or stereos. According to the U.S. Department of Labor, electrical engineers design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use. Entry into the field requires a bachelor's degree in electrical engineering or electronic engineering.

Eastern cites numerous studies in support of its proposal, including reports by the Washington Council of the American Electronics Association (AeA), the Washington Technology Center, the Seattle-based Technology Alliance, the Spokane Regional Economic Development Council, and the Washington Technology Center. According to these organizations:

- Washington does not produce the number of bachelor's degrees necessary to attract and sustain technology-based industries;
- The number of bachelor's degrees granted in Washington in science and engineering is in the lowest third of the nation on a per capita basis;
- Technology and economic development thrives in states where education systems stress science and engineering, producing technologically sophisticated workers;
- Approximately 5,000 engineering positions in this state need to be filled each year, and Washington colleges and universities are only producing 2,000 to 2,400 engineering graduates annually; and
- Spokane-area colleges and universities should expand enrollments to meet workforce needs in academic fields that include information technology, engineering, and software development.

Eastern also presented forecast data prepared in June 2002 by the Washington State Employment Security Department, which predicted that between 2005 and 2010, the state would need about 200 additional electrical, electronics, and computer hardware engineers per year: 45 in Seattle-King County, and 8 in Eastern Washington/Spokane. (Eastern's proposed electrical engineering degree provides course work in electronics and computer hardware. Therefore, statistics on these engineers were reported.) A HECB staff review of the department's February 2003 forecast for 2005-2010 shows a projection for 127 additional electrical, electronics, and computer hardware engineers per year: 47 in Seattle-King County and 8 in Eastern Washington/Spokane.

EWU said about 25 companies in Washington State continue to seek graduates with backgrounds in electrical engineering. Also, the university reported that according to the 2002-2003 U.S. Bureau of Labor Statistics Occupational Outlook Handbook, the electrical engineering field is projected to be a fast-growing occupation between 2000 and 2010, with a projected growth rate of 10-20 percent. In Washington, electrical engineering is also projected to be a relatively high-demand field. One reason is the continuing growth of e-commerce and the development of technological devices to track business shipments, costs, and inventories in real time.

In addition, the HECB staff has reviewed the most recent data published by the Washington State Employment Security Department on unemployment insurance claims by electrical engineers, electronics engineers, and computer hardware engineers for February 2003 and February 2004. The department reports that total employment in all three fields in Washington increased between February 2003 and February 2004. Further, the total number of unemployment filings – and the jobless rate – declined in all three occupations during that time. The unemployment data is included in **Appendix 2.**

Description of proposed programs

Curriculum

The proposed BSEE curriculum consists of 12 sequenced quarters of full-time attendance, with a minimum of 180 credits required for graduation. Basic science courses, general education requirements, and introductory circuits and programming courses are offered in the first two years. The junior year includes classes in all branches of the engineering field and the senior year emphasizes electives and a capstone project. Three areas of specialization are available to students:

- Digital signal processing and/or communication systems;
- Microelectronics and/or very large-scale integration (VLSI) design; and
- Control systems.

Classes would be taught face-to-face and over the K-20 network for both the North Seattle 2-plus-2 program and the four-year program at the Cheney campus.

In addition, Eastern has indicated that students who wish to enroll at the main campus at Cheney, to complete the first two years of the North Seattle-based program, could do so beginning in fall 2004**.**

As outlined in Table 1 below, the proposal represents a standard curriculum for a bachelor's degree in electrical engineering, and it is based on program criteria specified by the Accreditation Board for Engineering Technology (ABET), which is the nationally recognized specialized accrediting agency for engineering education.

Table 1: EWU Bachelor of Science in Electrical Engineering - Proposed four-year curriculum

Lower Division

Fall		Winter		Spring	
Freshman					
Calculus I	5	Calculus II	5	Calculus III	5
Visual Literature & Performing Arts	5	Visual Literature & Performing Arts	5	Visual Literature & Performing Arts	5
English 101	5	English 102	5	English 103	5
Total	15	Total	15	Total	15
Sophomore					
Individual & Society	5	Individual & Society	5	Individual & Society	5
General Chemistry	5	Technical Writing	3	Linear Algebra	4
Engineering Physics I	5	Engineering Physics II	5	Engr. Physics III	5
Vector Calculus	3	Differential Equations	3	Digital Circuits	4
Total	18	Total	16	Total	18

Upper Division

Fall		Winter		Spring	
Junior					
Computer Programming	5	Signals and Systems I	5	Signals and Systems II	5
Fundamentals of Elec. Engineering	5	Electronics II	5	Microprocessors I	5
Electronics I	5	Circuits II	5	Approved Elective	5
		Digital Circuits II	2		
Total	15	Total	17	Total	15
Senior					
		Elec. Eng. Elective	5	Elec. Eng. Elective	5
Probability and Intro. to Statistics	5	Energy Systems	5	Technical and World Civilization	4
Elec. Eng. Elective	5	Cultural/Gender Diversity*	4	Capstone	4
Electromagnetism	4				
Total	14	Total	14	Total	13

*Lower division course

Goals and objectives

According to EWU, "The mission of the electrical engineering program at Eastern Washington University is to provide a comprehensive education utilizing the classroom, applied research, experience-based learning, and extensive laboratory experience. Additionally, students will be encouraged and challenged to investigate, innovate, incorporate and implement engineering knowledge in the solution of today's technological problems."

In keeping with ABET requirements, EWU developed detailed educational objectives to support this mission; designed a curriculum to achieve the educational objectives; and developed an ongoing curriculum evaluation process. The university also plans to establish an advisory board to ensure the program's effectiveness. Specifically, ABET requires accredited programs to have:

- Detailed published educational objectives that are consistent with the mission of the institution;
- A process to determine the objectives, and evaluation methods that are based on the needs of the program's various constituencies;
- A curriculum and processes that prepare students for the achievement of these objectives; and
- A system of evaluation that demonstrates achievement of the objectives and uses the results to improve the effectiveness of the program.

Student learning outcomes

ABET stipulates the student learning outcomes that engineering education must impart. Table 2 compares the ABET outcomes to those drafted by EWU.

Table 2: Comparison of Student Learning Outcomes

ABET Student Learning Outcomes	EWU Student Learning Outcomes
• Apply knowledge of mathematics, science and engineering	• Apply learned knowledge to practical problems and adapt to emerging applications of mathematics, science, engineering, and technology
• Function on multi-disciplinary teams	• Function effectively on a team
• Identify, formulate, and solve engineering problems	• Understand industrial engineering concepts • Understand electrical engineering terminology and processes
• Understanding of professional ethical responsibility	• Understand professional, ethical, and societal responsibilities
• Communicate effectively	• Write clearly and effectively to a variety of audiences • Communicate verbally, give presentations, demonstrate skills related to persuasion, listening and the consideration of other points of view appropriate for industry
• The broad education necessary to understand the impact of engineering solutions in a global and societal context	• Demonstrate respect for diversity and a knowledge of contemporary professional, societal, and global issues
• Recognition of the need for, and ability to engage in life-long learning	• Recognize a need for and ability to engage in life-long learning
• Knowledge of contemporary issues	• Demonstrate respect for diversity and a knowledge of contemporary professional, societal, and global issues • Faculty and students involved with advisory board
• Use techniques, skills, and modern engineering tools necessary for engineering practice	• Use typical engineering tools, hardware, and software in an efficient manner

Enrollment projections

EWU expects that the upper division component of the 2-plus-2 program offered at North Seattle CC would initially serve 25 FTE students and grow to 40 FTE students at full enrollment by 2008. The Cheney program would initially serve 20 FTE and grow to serve 30 FTE students at full enrollment, also in 2008. The university said students should be able to complete the upper-division portion of the program in six consecutive quarters.

The FTE enrollment targets and time-to-degree estimate are consistent with generally accepted enrollment levels and completions times for other undergraduate degree programs. However, the university's proposal does not address the issue of student attrition – that is, the number of students who enter the program but drop out before earning a degree – which has been cited by the AeA and others as a significant barrier to information technology degree production.

Personnel resources

ABET-accredited programs must demonstrate that the faculty has the skills and credentials to cover all areas of the program of study, and that there are enough faculty members to accommodate student-faculty interaction, advising and counseling, service activities, professional development, and interaction with practitioners and employers. The overall competence of the faculty may be judged by such factors as education, diversity of backgrounds, engineering experience, teaching experience, ability to communicate, enthusiasm for developing more effective programs, level of scholarship, participation in professional societies, and licensure as professional engineers.

EWU reports that existing faculty resources to support the program include three assistant professors. One holds a Ph.D. in electrical engineering, and the other two have master's degrees. Upon HECB program approval, EWU would assign one faculty member full-time to North Seattle CC to coordinate and instruct in the program at that site, and conduct a search to hire an additional Ph.D. in electrical engineering who would be located at North Seattle. In 2005, a third Ph.D. in electrical engineering would be hired. EWU full-time faculty would teach the junior and senior level courses. Part-time faculty would be used as needed to teach elective courses. All faculty associated with the program would advise and counsel students.

The chair of the Department of Engineering Technology and Multi-media Design would dedicate 25 percent of his time to administering the program. A search has been initiated to hire a dean and director of the School of Computing and Engineering Science who would oversee the department. Half-time secretaries and lab technicians at North Seattle and Cheney would be hired to support the programs at both locations.

The proposal does not address library and student services personnel or other resources.

Facilities

The proposed program at North Seattle Community College would be housed in the college's High Technology Learning Center. This building was constructed in 1999 and provides 25,140 assignable square feet for instructional program use. The *Higher Education Facilities Preservation Study* conducted in 2003 by the Washington Joint Legislative Audit and Review Committee in consultation

with the Higher Education Coordinating Board, classified the facility in good condition with a minimal backlog of preservation need. The North Seattle CC campus digital/electronics laboratory in the High Technology Learning Center can accommodate about 100 students. It houses basic equipment (digital and circuit, power, networking, and personal computer labs) to support an electrical engineering program and, as of the 2003-04 academic year, is not utilized in the afternoon.

The proposed electrical engineering program at the Cheney campus would be housed in the new Computing and Engineering Sciences Building (Cheney Hall). This facility is under construction and is scheduled to open in 2005. It is designed to provide 56,000 assignable square feet of instructional program space in engineering technology and computing science. It will include digital and circuit, robotic and control, power, networking, and personal computer labs.

ABET specifies that classrooms, laboratories, and associated equipment must be adequate to accomplish the program objectives and provide an atmosphere conducive to learning. Appropriate facilities must be available to foster faculty-student interaction and to create a climate that encourages professional development and professional activities. Programs must provide opportunities for students to learn the use of modern engineering tools. Computing and information infrastructures must be in place to support the scholarly activities of students and faculty and the educational objectives of the program and institution.

Diversity

The university said it intends to establish a strong recruitment and retention infrastructure and initiate activities targeted to under-represented students. For example, a full-time recruitment/ advisor will be hired for high demand fields in EWU's School of Computing and Engineering Sciences. Targeted activities planned for both North Seattle and Cheney include:

- Developing in-depth and comprehensive admissions review criteria to evaluate prospective students, including interviews and attention to community service activities;
- Recruiting women and minority faculty and creating faculty development plans for promotion and tenure, whereby faculty would earn credit toward tenure for mentoring and retaining under-represented students in their departments; and
- Expanding working relationships with the regional GEAR-UP, Talent Search, and MESA (Math, Engineering, Science Achievement) programs.

Evaluations of program quality

Accreditation

In fall 1999, the Accreditation Board for Engineering Technology (ABET) accredited Eastern's computer engineering technology program for six years. In 2006, the university intends to seek ABET accreditation for its proposed electrical engineering program at North Seattle CC. The ABET *2004-2005 Policy and Procedure Manual* specifies new programs are eligible to apply for accreditation after graduating the first class of students. ABET's accreditation process entails review of a self-study report prepared by the institution, and an on-site evaluation by a team of scholars and practitioners in the field.

The ABET Engineering Commission decides whether an engineering program should be accredited based on the review of the university's self-study, recommendations by the visiting evaluation team, and the institution's responses to the evaluation team's report. Accreditation is usually granted for either two or six years, and it is retroactive for the preceding graduating class. Accreditation for a full term of six years indicates that a program satisfies all of the ABET criteria. If weaknesses exist or the future of the program appears questionable, the accreditation will be granted for a shorter period, usually two years. Factors that may limit the period of accreditation include uncertainty related to the program's financial status or administrative organization; a need for improvements related to staff, facilities, or equipment; a new or changing curriculum; or dependence on a single individual. In other words, if a department chair or other faculty member who plays a key role in establishing a program were to depart, would there be requisite institutional commitment and resources to sustain the program?

Student learning assessment

ABET stipulates the evidence that may be used to assess student learning. It includes, but is not limited to, student portfolios, design projects, nationally standardized tests, alumni surveys, employer surveys, and job placement of graduates. Student self-assessment, opinion surveys, and course grades are not, by themselves or collectively, acceptable methods for documenting achievement of outcomes. Results of the assessment are to be applied to the further development and improvement of the program.

EWU has designed an assessment process based on ABET accreditation guidelines. The university plans to assess student learning in each course through measurable objectives. The methods of assessment would include grades, evaluation of laboratory reports, employer and student surveys, and evaluation of engineering projects. These assessments would ensure the program is fulfilling its mission and continually improving; and would verify that graduates are prepared for their profession.

Ongoing program evaluation

ABET requires accredited programs to maintain a system of ongoing evaluation that demonstrates achievement of program objectives and uses the results of the evaluation to foster improvement. EWU has proposed program assessment procedures based on this requirement that would be coordinated by the chair of the Department of Engineering Technology and Multi-media Design. To implement this assessment:

- Students would complete course evaluations each term;
- Full-time faculty would be responsible for additions, deletions, changes, or modifications to the program in all areas of structure, process, and outcomes;
- A curriculum committee composed of EWU faculty, industry representatives, electrical engineering faculty from the UW or WSU, and engineering faculty from selected community colleges, would consider and implement curriculum changes; and
- Faculty, students, and administrators would have opportunities to provide input related to areas of structure, process, and outcomes.

Proposed budget

Table 3 presents a summary of estimated costs for the proposed program. EWU proposes the programs at North Seattle CC and the main campus in Cheney be supported in two ways: (1) through internal reallocation of existing funds; and (2) through a HECB high-demand enrollment grant, for which EWU intends to apply based on the Legislature's approval of enhanced high-demand funding for the 2004-05 academic year. Because there is no assurance that the university would receive a high-demand grant (allocations are made in response to competitive proposals), the university's proposed budget as outlined below is based exclusively on reallocated funds.

EWU has identified several available sources for reallocation within the university's budget, including additional enrollment funding provided in the 2004 supplemental state operating budget; tuition revenue realized from enrolling students above the state-supported level; and funds received in the 2003-05 biennial state operating budget to expand capacity to enroll upper-division transfer students.

The total estimated cost for the programs at North Seattle and Cheney is approximately $480,000 per year, which is equivalent to $6,860 per FTE student at full enrollment. Equipment replacement and maintenance costs are estimated to be $60,000 per year. Potential non-recurring start-up costs include $5,000 for program marketing; $8,000 for faculty recruitment; $2,000 for travel related to starting the program at North Seattle CC; and $26,000 for initial library expenses.

Table 3: Proposed budget for EWU Bachelor of Science in Electrical Engineering

			Program at North Seattle CC		Programs at North Seattle CC and Cheney campus		
Category	**Internal Reallocation**	**New State $**	**2004-2005[1]**	**2005-2006**	**2006-2007[2]**	**2007-2008[5]**	**2008-2009**
Administrative Salaries (.50 FTE Benefits @27%)[3]	$44,500	0	$44,500	$44,500	$44,500	$45,835	$45,835
Faculty Salaries (3 FTE Benefits @27%)[4]	$276,225	0	184,150	276,225	276,225	284,512	284,512
Clerical Salaries (.5 FTE Benefits @32%)[3]	$19,800	0	19,800	19,800	19,800	20,394	20,394
Technician Salaries (.5 FTE Benefits @32%)[3]	$23,760	0	23,760	23,760	23,760	24,473	24,473
Goods and Services	$35,000	0	35,000	35,000	35,000	35,000	35,000
Travel	$8,000	0	8,000	8,000	8,000	8,000	8,000
Equipment Replacement and Maintenance	$60,000	0	60,000	60,000	60,000	60,000	60,000
ABET Costs	$2,000	0			2,000	2,000	2,000
TOTAL	**$469,285**	**0**	**$375,210**	**$467,285**	**$469,285**	**$480,214**	**$480,214**
FTE Students			**25**	**40**	**60**	**70**	**70**
Cost per FTE Student[6]			**$15,008**	**$11,682**	**$7,821**	**$6,860**	**$6,860**

1. Program starts at NSCC
2. EWU on-campus program starts
3. 25% on EWU campus and 25% on NSCC campus
4. Faculty located on EWU campus and/or NSCC campus
5. Includes a 3% pay increase
6. Does not include $3509 incremental cost (indirect cost)

EXISTING ELECTRICAL ENGINEERING PROGRAMS

Five independent institutions in Washington (Gonzaga University, Henry Cogswell College, Seattle Pacific University, Seattle University, and Walla Walla College) and two public institutions (University of Washington and Washington State University) offer undergraduate electrical engineering programs. Table 4 displays enrollment and degree production for each of these programs over the last five years.

Table 5 summarizes the cost data submitted by institutions that currently offer bachelor's programs in electrical engineering. It also exhibits the projected costs of the EWU program. Due to existing capabilities and practices, not all institutions were able to report both direct instructional costs and total costs (direct and indirect costs).

These data indicate average per-student costs of the proposed EWU programs would be most comparable to the costs of programs offered by Gonzaga University and Walla Walla College. These institutions report the lowest costs of the institutions surveyed. There is a wide variation in reported costs, particularly the costs reported by the public four-year institutions. Many factors produce these differences, including institutional role and mission, type of faculty, faculty compensation levels, and faculty instructional credit load.

Table 5 also shows the student-faculty ratios reported by the institutions. The proposed EWU program would have the highest ratio, with 23 students per full-time faculty member. Of additional interest is the apparent lack of a uniform relationship between program costs and student-faculty ratios. Specifically, institutions with the lower ratios have both the lowest and the highest cost per student. Again, this may reflect the differences in type of faculty, faculty compensation, and faculty instructional credit load.

Table 4: Electrical engineering headcount enrollment and degrees granted 1999-2004

Institution	1999-00	2000-01	2001-02	2002-03	2003-04*
Gonzaga University	35/9	50/18	63/9	64/12	62
Henry Cogswell College	62/9	49/8	47/6	43/6	37
Seattle Pacific Univ.**	25/21	20/26	31/24	4/17	15
Seattle University	143/16	147/24	139/20	146/20	135
Univ. of Washington	450/137	505/165	523/222	472/196	461
Walla Walla College	66/8	56/11	46/11	39/6	37
Washington State Univ.	372/99	403/61	411/71	426/61	409
Total	**1,153/299**	**1,230/313**	**1,260/363**	**1,194/318**	**1,156**

*****2004 graduation information not yet available Source**: HECB survey, 2003**

**SPU reported the number of annual declared majors and number of graduates

Table 5: Summary of costs of electrical engineering programs
Average annual cost per FTE student

Institution	Direct Costs Only	Direct and Indirect Costs	Student to Faculty Ratio*
Eastern Washington Univ. (projected)	$6,860	$10,369	23:1
Gonzaga University	$5,985	Not reported	15:1
Henry Cogswell College	Not reported	$13,109	17:1
Seattle Pacific University	$9,363	Not reported	13:1
Seattle University	$8,671	Not reported	11:1
University of Washington**	$10,225	$15,736	18:1
Walla Walla College	$4,560	$9,700	18:1
Washington State University**	$10,593	$16,723	12:1

*Student to faculty ratios have been rounded to the nearest whole number. **Source**: HECB survey, 2003
**Direct costs are estimated based on the 2003 HECB Cost Study.

Enrollment growth capacity

Table 6 summarizes the reported enrollment growth capacity of the surveyed institutions and the resources needed to accommodate growth. The state's public research universities report they have no capacity for enrollment growth due to insufficient state funding. Consequently, they have imposed enrollment caps. However, both institutions report that their existing facilities could accommodate more students.

The independent institutions all report existing growth capacity (totaling an additional 462 students) and could respond to increased enrollment demand at their institutions. Other than the need for additional faculty, the colleges indicate few other growth requirements exist. (Note: Walla Walla. SPU, and Gonzaga growth capacity enrollment is headcount; Henry Cogswell, SPU, and SU is FTE.)

Table 6: Enrollment Growth Capacity

Institution	Capacity for additional enrollment	Growth requirements/constraints
University of Washington	0	Additional state enrollment funding needed for program growth.
Washington State University	0	Additional state enrollment funding needed for program growth.
Gonzaga University	62	Additional faculty would be needed. No other constraints reported.
Henry Cogswell College	180	No constraints reported.
Seattle Pacific University	60	Minor costs ($30,000) for additional equipment.
Seattle University	100	Growth would require additional faculty and minor capital outlay ($250,000).
Walla Walla College	60	An additional non-faculty staff position would be needed. No other constraints reported.

Source: HECB survey, 2003

EXTERNAL REVIEWS AND PUBLIC COMMENTS

Reviews of the program proposal commissioned by EWU

HECB program approval policy and procedures include soliciting external reviews conducted by experts in the discipline, as well as peer reviews conducted by Washington's baccalaureate institutions. Staff assess whether the reviews generally support the proposal or raise substantive issues and concerns that need to be addressed by the proposing institution.

Five external reviewers were commissioned by Eastern to review this proposal:

Larry L. Wear
Professor and Chair, Electrical and Computer Engineering Department
California State University, Chico, CA

Terri Fiez
Director and Professor, School of Electrical Engineering and Computer Science
Oregon State University, Corvallis, OR

Ping Hou
Staff Engineer
Fondus Communications, Inc. Sunnyvale, CA

Terry Decker
Product Marketing Manager
Alignment Technologies, Liberty Lake, WA

Tuanhai Hoang
President
Qualitel Corporation, Redmond, WA

Appendix 3 contains the written responses of the external reviewers. In summary, they identified the following strengths in the proposal:

- The program goals and objectives are consistent with what one would expect of a contemporary electrical engineering program and are compatible with the outcomes ABET requires each engineering program to demonstrate;
- The description of how the program meets all seven ABET criteria is well done and complete;
- The proposed program would provide local access for working professionals, and the courses would be offered at times that would accommodate working students; and
- Proposed labs and equipment include most of the commonly used equipment in industry, including logic analyzer, signal generator, spectrum analyzer, microprocessor test board, and software tools.

However, the external reviewers also expressed concerns that:

- The university over-estimates the need for the program and under-estimates its associated costs;
- Faculty and resources are insufficient to support high-quality programs and laboratories at both North Seattle CC and Cheney;
- The university lacks adequate resources to supervise, advise, and monitor students; and
- The student learning outcomes and assessment methodologies are too limited.

EWU responded to these concerns by showing that need for the program was well documented and program costs were reasonable; one full-time faculty member would be assigned to the North Seattle CC campus, and others would be hired to support the program; and that assessment would be based on a number of factors, including class grades and employer and employee surveys.

Comments by other public Washington colleges and universities

Representatives of the University of Washington, Washington State University, and Central Washington University also commented on EWU's proposal. In addition, the president of North Seattle Community College sent a letter endorsing the proposal.

- The UW indicated that the appropriate UW faculty and administrators had reviewed the proposal and did not believe it would conflict with the university's existing bachelor's degree program in electric engineering;
- WSU indicated that if EWU could gain program accreditation, if students could obtain professional licenses, and employers hire EWU graduates, the program would represent a contribution to the state's economy and work force development efforts; and
- CWU indicated that administrators did not believe the proposed EWU program would have an impact on any current or future CWU programs.
- North Seattle CC President Ron Lafayette said his college is fully prepared to deliver the requisite lower-division courses for the program. He said the proposed 2-plus-2 partnership is a cost-effective approach to addressing the need for highly skilled graduates in the Seattle area, and that the proposal corresponds with the HECB master plan, which calls for additional enrollment and program capacity in high-demand fields.

Comments from independent colleges and universities

Opposing views have been received from the Independent Colleges of Washington (ICW), which represents 10 of Washington's private four-year colleges and universities; and from representatives of Gonzaga University and Seattle University, both of which are members of the ICW.

- The ICW, said demand for electrical engineering education – and for EE graduates – has dropped significantly in the past four years. Currently, the state's six existing programs have the capacity to accommodate double the number of new enrollments contemplated in the EWU proposal. The ICW also expressed concern that EWU has understated the cost of achieving ABET certification, particularly the cost of recruiting and maintaining a "critical mass" of faculty to support programs at both North Seattle and Cheney.
- The dean of engineering at Gonzaga University said he and his counterparts across the country are concerned that recent corporate out-sourcing of electrical engineering jobs to other countries "is not simply a symptom of an economic downturn, nor a transitory phenomenon that will disappear with economic growth, but rather a fundamental structural shift in engineering employment by U.S. companies." He said many recent Gonzaga graduates in electrical engineering have been unable to find a job, while others have abandoned the discipline and a number of current students have changed their majors from electrical and computer engineering to the higher-demand fields of civil and mechanical engineering.
- The dean of science and engineering at Seattle University said each existing electrical engineering program in the state "will potentially be hurt by the addition of yet another program for which there is no current demand." He also said the North Seattle CC location lacked the infrastructure, faculty presence, and upper division math and physics courses to support the degree program. "In summary," he said, "this is a bad idea, at the wrong time, at the wrong place, and for the wrong reason. What could be worse?"

Appendix 4 includes letters from the higher education institutions and interested organizations.

Statements of support from interested parties

The HECB has fielded correspondence either expressing support for the proposed program or urging the Board toward an expeditious review of the proposal. Letters have been received from the Washington Council of the AeA; state Sen. Jim Horn, R-Mercer Island; state Reps. Don Cox, R-Colfax; Bill Fromhold, D-Vancouver; Fred Jarrett, R-Mercer Island; and Phyllis Kenney, D-Seattle. In addition, Brice Consulting, a technology consulting company in Redmond, submitted an endorsement.

Supporters cite a critical need for the program to meet industry demand and to serve students who would not otherwise have access to an affordable and conveniently located electrical engineering program.

The AeA said the total number of engineering graduates from Washington's public and private universities had fallen about 4.5 percent in approximately the last 10 years, compared to a decline nationwide of about 4 percent. The AeA said unless the state supports expansion of the pool of engineering graduates, "employers will be forced to hire from out of state, internationally, or choose to move their business where they can find people with the appropriate skills."

ANALYSIS AND PRELIMINARY FINDINGS BY HECB STAFF

The HECB staff offers preliminary findings and analysis based on the following:

- The staff's review of the EWU proposal, including communication with officials at the university since the original proposal submission in December 2003;
- Site visits by the HECB executive director to the Cheney campus of EWU and North Seattle Community College;
- Comments of external reviewers solicited by the university;
- Comments received from colleges and universities that have existing electrical engineering programs;
- Statements of support and opposition received from interested parties; and
- Communication with legislators about the proposal.

In that context, the staff's preliminary findings are as follows:

1. Eastern Washington University is responding to expressed needs and keenly felt desires to produce more baccalaureate degrees in electrical engineering in Washington. A major overture has come in the form of HB 1808, passed in 2003, which enables regional comprehensive universities to establish degree-granting programs in this field subject to HECB approval.

   The university and its community college partner have collaborated admirably in the preparation of this new degree program proposal. This includes regular communication and meetings among deans and faculty members at the respective institutions. All parties agree on the existence of underutilized facilities at North Seattle CC and that the necessary capabilities are in place to offer the programs. An equipment inventory has been conducted by EWU at the community college; the university has also examined prospective operations in the new engineering building on its own campus. The university has obtained equipment from external sources to make the program operational.

   Articulation and transfer have been systematized by EWU, not only with North Seattle CC, but also with Clark College, South Seattle Community College and Bellevue Community College. A university faculty member is prepared to undertake student recruitment for the program as early as this spring. EWU has full-time staff in place in Western Washington.

   EWU has no compunctions about its ability to graduate professionally competent people in this field of study. This confidence is based partially upon such achievements as the university placing highest in regional university competitions in computer science. The university is actively engaged in securing external funding to support students pursuing careers in science-related fields.

2. Any new degree program proposal has to address the same challenge as existing approved programs in Washington, i.e., the continuing decline of inflation-adjusted state funding for higher education. This proposal raises significant questions about the best manner of responding to reduced state funding, and it highlights the need for more carefully conceived state policy and academic planning for the future. The Board must determine sometime whether to promote innovative approaches to program delivery of the sort foreshadowed by this proposal or to advocate greater state support to expand existing programmatic capacity. It is crucially important to ascertain Washington's most cost effective method of program delivery.

3. Independent institutions of higher learning in Seattle and Spokane may already have the capacity to serve more students than those who would be served by the two proposed programs. Of course, reliance upon independent colleges and universities to fulfill higher education needs presents another significant policy issue to address.

4. Employer demands for electrical engineering baccalaureate degree holders in Washington remains subject to interpretation. From one perspective, employment in fields employing electrical engineers has increased during the past year. Concurrently, statewide projections of employers' future needs for electrical engineers (until 2010) have recently been revised downward by the Employment Security Department. Over the course of the last five years, existing bachelor's programs have annually produced approximately 300 electrical engineering graduates. In February 2002 the Employment Security Department projected statewide needs for about 200 more electrical, electronic and computer hardware engineers each year. The next year it reduced projections by nearly a third, to 127 new engineers per year in these fields. And, despite an improving general outlook on unemployment, more than 180 electrical engineers filed unemployment insurance claims with the state during February 2004.

5. The proposed budget and outline of the personnel and other resources needed for the programs at North Seattle CC beginning in fall 2004, and at Cheney in fall 2006, do not conclusively demonstrate that the university has the existing and potential resources that will be needed to initiate and sustain a high-quality electrical engineering program, as required by the HECB and ABET.

   Based on the university's proposed budget, it appears EWU does not anticipate its costs will increase in 2006, when it commences operation of the four-year BSEE program at the main campus in Cheney, in addition to maintaining the 2-plus-2 program at North Seattle CC. Total estimated funding is listed at $467,285 for 2005-06, the year before the Cheney program is proposed to begin. The following year, when the university hopes to offer programs in both locations, EWU estimates its total costs for both programs at $469,285. At full enrollment in both locations, the university estimates its total budget at $480,214. It is noteworthy that the reviewers commissioned by EWU expressed concern about the adequacy of the identified resources. The HECB staff believes it is unrealistic to assume no increase in costs during this period, even allowing for economies related to distance education, administrators who are responsible for overseeing both program locations, and other operational strategies.

6. It is generally accepted in higher education that making student enrollment and graduation projections is characteristically more art than science. Nonetheless, legitimate questions arise about whether a critical mass of qualified students exists to realize aspirations for success of the degree programs being proposed by EWU to be delivered in North Seattle and Cheney.

   More than 200 qualified applicants for admission into the electrical engineering undergraduate program at the University of Washington are rejected each year. Some of these students might elect to enroll in a 2-plus-2 program at North Seattle CC or a four-year program in Cheney. However, no definitive information has been provided about the subsequent academic career choices of unsuccessful program applicants.

The proposal cites information derived from a survey of transfer students from one community college. However, only a small number of the 935 students who were surveyed on behalf of Bellevue Community College subsequently enrolled or pursued interests in programs related to electrical engineering. One cannot conclude any demonstrable interest among community college students for the proposed program at this time. This happens because colleges are understandably reluctant to engage actively in normal recruitment activities prior to program approval.

Similarly, it remains unclear whether the un-utilized capacity in existing electrical engineering programs cited by independent institutions of higher education affords realistic options for the prospective pool of students that the proposed new programs intend to serve. For example, working adult students would not likely be able to afford attendance at independent institutions, or to synchronize classes with their schedules.

7. None of the resource concerns relative to this proposal is more important than faculty. This pertains to both current HECB and subsequent ABET consideration of the proposal. Neither entity will likely condone proposals with other than full-time core faculty members already in place to meet the instructional, advising and counseling needs of students. Moreover, they will also determine whether requisite faculty members are in place who make the scholarly achievements, research findings and public service commitments inherent in a high-quality program. EWU has identified current and future professional staff who would furnish constructive programmatic leadership and supply crucial student support services in North Seattle and Cheney. Questions remain about the provision of critical library/learning resources and student services.

Appendices

Appendix 1: Correspondence between the HECB and EWU

Appendix 2: Employment Security Department Data

Appendix 3: Written statements of the external reviewers commissioned by EWU

Appendix 4: Correspondence from higher education institutions and interested organizations

Appendix 1:

Correspondence between the HECB and EWU

Response to Dr. James E. Sulton's February 26, 2004 letter.
Prepared by Eastern Washington University
March 3, 2004

1. *Why does the university propose to establish a new baccalaureate degree program at a remote site before successfully mounting an accredited program on its own campus?*

   As documented in the proposal to the HECB for a new Bachelor of Science in Electrical Engineering (BSEE) program at EWU, the American Electronics Association (AEA) presented to the Washington State Legislature the need for another BSEE program in the Seattle area. Further, the AEA asked EWU to initiate the process by offering such a program in Seattle. The AEA determined that a great need for electrical engineers existed in the Seattle area and that electronics laboratories are available at North Seattle Community College (NSCC) which are not fully utilized.

   Data shown in the proposal submitted to the HECB for a new BSEE program at EWU indicates a strong need for new BSEE graduates in the State of Washington. The demand for such graduates is alarmingly increasing in the Seattle area, thus it is important to begin the new program in Seattle. The demand for such a program in Eastern Washington, though severe, is not as urgent as in Seattle.

   The Department of Engineering Technology and Multimedia Design (ETMD) has already established its ability to successfully conduct distance learning in several remote sites throughout the State. The ETMD Department has operated several very successful distance education programs for more than six years. More than 70 students are enrolled at three sites including Clark College, South Seattle Community College, and Bellevue Community College.

2. *What kind of leadership, planning, and expertise are currently in place on the home campus to maintain academic control of the program at North Seattle Community College? How would this quality-control process work in practice?*

   EWU is beginning a search for an Associate Dean and Director of the School of Computing and Engineering Sciences. The budget for this position has been secured. This Dean will oversee the ETMD Department.

   The ETMD Chair will administer all BSEE program aspects. The Department Chair holds a Ph.D. and has held his office for a total of nine years and has administered Accreditation Board for Engineering and Technology (ABET) programs as part of his duties. Three current faculty members in the Department are electrical engineers with one holding a Ph.D. in Electrical Engineering.

   As soon as the BSEE program is approved, one of the faculty members from the ETMD Department will proceed to the NSCC campus to organize the program at the

NSCC site. An office has been provided by NSCC. This faculty member will coordinate as well as instruct in the program on-site. The department chair will work directly with the BSEE program coordinator to administer the program. A BSEE Advisory Board will be created upon the program's approval and will begin advising the program. Draft ABET assessment plans have been created and will be finalized as the advisory board becomes active.

Upon program approval, a nationwide search will be conducted to hire an additional Ph.D. in Electrical Engineering. This faculty member will be located on-site at NSCC in addition to the coordinator mentioned above. Then, during the 2004/2005 academic year an additional Ph.D. faculty member in Electrical Engineering will be hired to begin teaching in the spring or fall of 2005. The program's lecture/discussion sessions will operate from the EWU Cheney campus or the NSCC campus over the two-way interactive K-20 network. For the first two years, the classes will be conducted mainly at the NSCC campus. During the third and successive years, courses will be taught from either campus depending on where a particular expertise resides. Electrical engineering laboratories will be conducted with the students in their respective on-site campus laboratories.

3. *Have the prerequisite lower-division course equivalencies for the proposed electrical engineering major been pre-established between EWU and NSCC? If so, when was this accomplished?*

   A complete four-year plan for NSCC transfer students has been created and presented in the BSEE proposal presented to the HECB. This four-year plan includes all classes that will be taught by NSCC, South Seattle Community College, and Central Seattle Community College as part of the student's academic career. Classes that have been agreed upon by NSCC and EWU for the lower-division prerequisites are identical to those accepted by the University of Washington's BSEE program. A formal articulation agreement between both institutions will be signed as soon as approval for the program is granted by the HECB.

4. *The ABET has particular qualitative concerns about maintaining a strong core faculty at sites where engineering degree-programs may be offered. They have been cool to the notion of itinerant faculty. Does the university intend to recruit and hire a core faculty to offer the BSEE at NSCC? Specifically, to what extent will adjuncts be utilized, and what standards and practices have been established to select them, supervise them, and evaluate their performance?*

   EWU intends to use full-time faculty members for all junior/senior BSEE course work. In the exceptional case that an elective course outside the areas of expertise of the faculty is proposed, adjunct faculty will be utilized. Please see answer to question 2 above. Washington State, EWU, College of Science, Mathematics, and Technology, and ETMD Department employment plans are all in place. These will be strictly followed in advertising for, hiring, tenuring, retaining and promoting all tenure track and adjunct faculty positions. These plans include a rigorous review of

all faculty members. The use of student evaluations and peer reviews are just two of the tools employed in the review process. The College of Science, Mathematics, and Technology "College Plans" and the Department of ETMD "Department Plans" are available for review.

In a conversation with Daniel Hodge ABET's Accreditation Director he stated that when implementing a multi-campus engineering program beginning remotely first will not effect its accreditation. He further stated that programs are evaluated on quality and that mode of delivery (i.e. web based, interactive television, or face to face) was less significant.

5. *ABET also has concerns about designing a program that will meet the needs of specific employers and designing an outcomes-based evaluation of the program and student learning in conjunction with the program's constituency. Is the university trying to accommodate specific employers? And, with which employers has the university had meaningful contacts in designing the program and its evaluation?*

   Washington State has many electronic, software, and engineering companies such as Itron, Keytronics, Itronixs, Agilent Technologies, Oracle, Microsoft, Cisco/Nortel, Graybar, World Wide Packets, INTEL, Fluke, Boeing, Telect, Bayliner, Schweitzer Engineering, Bremerton Shipyards, Pacific Northwest National Laboratory, AVISTA, Bonneville Power Administration, Inland Power and Light, and MW Engineering that need a technologically well-educated workforce. These and other companies in the State and region currently employ EWU graduates in a variety of technical fields and they continue to request graduates with solid backgrounds in EE and the ability to integrate engineering processes with software design.

   EWU is striving to graduate students from a well-balanced BSEE program that will allow them to work in an assortment of industries and for a large variety of companies including those listed above. The creation and direction of the BSEE program has received significant input and support from Microsoft, Agilent Technologies, Schweitzer Engineering, Fluke, Itron and other companies that would employ its graduates. In addition, surveys from employers of recent graduates are incorporated in an assessment plan to evaluate student learning. A BSEE Advisory Board consisting of representatives from both industrial and community organizations is also being established to offer input and guidance to make sure that the engineering skills required in the future will be taught. This ensures that graduates with relevant and pertinent training will be properly prepared and ready to enter the workforce.

6. *EWU's external reviewers have raised questions about the assessment of student learning outcomes relative to the proposal, indicating that it should not be limited to course grades. They also question the utility of educational technology in effectively delivering this program. Does the university propose distance learning as a primary means of instructional delivery? Does the proposal provide for adequate student advising and counseling?*

In response to the aforementioned reviewer, the proposal presented to the HECB states: "It is noted that according to ABET, student self assessment or grades in a specific class cannot be used alone as a method for evaluating program outcomes. While we do base our evaluation on a number of factors including class grades and employer and employee surveys, we never use each one independently. That is, triangulation is *always* used to ensure that a legitimate evaluation is obtained. Furthermore, whenever possible, students' projects and presentations are used for assessment."

The proposal also describes the method of instructional delivery as a combination of distance learning (through the K-20 network) and face-to-face instruction in both campuses. Full-time professors will be located permanently in the NSCC campus, thus ensuring that all laboratories and some classes are delivered on site. Students will *always* receive personal advising from faculty. Please see answer to question 2 for additional details.

Are the proposed financial resources adequate to support a high quality program for the short and long term?

The budget for the proposed BSEE program is shown in Table 5 (pp. 18) in the proposal presented to the HECB. This budget reflects initial and yearly administrative, clerical and faculty salaries, as well as technician, maintenance, travel, and goods and services requirements. This budget was accepted and commended by external program reviewers (pp. 26). This indicates that the financial resources are adequate and competitive for short and long term needs.

EWU has been consistent with its testimony before the Washington State Legislature that we would request "high demand" funding. The BSEE program should be able to compete on its own merit for "high demand" money.

7. *How does the university respond to statements that indicate employment demand for baccalaureate degree holders in EE may be less than the proposal stipulates? Also, what would be its response to the position of some other higher educational institutions that student interest may be softer than the proposal indicates?*

First, EWU used the latest United States Bureau of Labor Statistics data on electrical engineering demand in preparation of the proposal. Second, the labor market is beginning to rebound and it may take another year or two before the economy fully feels the effect. Students in the new EWU program will not be graduating until 2006. By then the labor market should have expanded considerably. Third, the program, using conservative estimates, will graduate a small number of students (approximately 35 per year at steady state in 2008) compared to Washington State University and the University of Washington. This number of graduates will not overwhelm the electrical engineering labor market but will give it the boost of new EE graduates that will be needed.

EWU used Washington State Board for Community and Technical Colleges forecasted EE transfer student data in preparation of the proposal. This data is shown below and on Table 1, page 8, of the proposal.

Table 1. Forecasted Annual Transfers Seeking EE program (Above level currently being accepted)

	2004	2005	2006	2007	2008	2009	2010
Feeder Colleges to NSCC Area*	36	38	40	42	44	46	48
Feeder Colleges to Cheney Campus**			17	17	18	19	20

*Key feeder colleges: Seattle District, BCC, Shoreline, Highline
*Other feeder colleges: Edmonds, Everett, Green River, Tacoma, Pierce District
**Spokane District, CBC, YVCC, Walla Walla

This table indicates that a sufficient number of transfer students will be available to maintain the program. In 2007 for example, 59 transfer students are expected be available while EWU is planning for approximately 35-40 new BSEE transfer students.

8. *Have interagency agreements been completed between EWU and NSCC? If so, it would be extremely helpful for these to be included as appendices to the university's proposal.*

A sample memorandum of understanding (MOU) has been shared with NSCC. The MOU and an articulation agreement (see answer to question 3) will be signed pending HECB approval. A sample MOU used with Clark College is attached.

9. *What specific strategies will NSCC and the university employ to recruit, retain, and graduate underrepresented groups? Since there may be a cohort of students ready to enroll as the initial class at NSCC, it would be helpful to know the university's short term and long term diversity plans.*

Obtaining diversity in student and faculty is the number one priority of EWU. As a result, a solid recruitment and retention infrastructure specifically targeted to underrepresented students is being established.

The University-wide activities to be undertaken by EWU both in Seattle and Cheney include:

- Coordinate joint activities and work directly with the North Seattle Community College (NSCC) programs that recruit, support and encourage students from underrepresented groups, such as women, ethnic minorities, older students, and displaced workers;
- Develop an in-depth and holistic admissions review criteria including, but not limited to, community service activities, leadership records, and interviews that may be considered along with g.p.a. and standardized test scores (with the goal of determining the student's potential to be successful at EWU given their background and the services available to them once on campus);
- Obtain institutional approval to create faculty development plans (required for tenure and promotion) in which faculty get credit for mentoring and retaining

underrepresented students in their departments; and
- Expand outreach to K-12 schools and organizations supporting the educational development of nontraditional students.
- A National Science Foundation Science, Technology, Engineering and Mathematics Talent Expansion Program (STEP) proposal is being prepared by EWU. This proposal's aim is to implement strategies that will lead to an increase in the number of students obtaining Science, Technology, Engineering, and Mathematics (STEM) degrees at EWU.

The ETMD Departmental level activities in the plan include:
- Traditional recruitment activities such as site visits, advertisements and circulation of Internet, multi-media CDs, and hardcopy information on the EE program in conjunction with EWU's recruitment team in Student Affairs;
- Work with high school guidance counselors in ethnically and culturally diverse areas to develop a formal school to university relations and transitions program for the BSEE program;
- Develop or expand working relationships with the region's Gear-up, Upward Bound, Talent Search, MESA (Math, Engineering, Science Achievement) and HAAP (Hispanic Academic Achievers Program) programs to develop initiatives that peak student interest and participation in the BSEE program;
- Work with Washington State Achiever's Program (funded by Washington Education Foundation) advisors/mentors to recruit and retain scholarship recipients to the BSEE program;
- Work with industries to assist in developing specialized educational programs that lead to better academic preparation in science and engineering at all levels and to better workforce skills;
- Identify industry mentors and establish culturally relevant internships for underrepresented students (i.e., minority owned businesses, businesses located in the student's home community, etc.);
- Identify potential employers sensitive to the needs of underrepresented students (i.e., flexible hours, daycare center on site, diverse workforce) and expand opportunities for part-time and full-time employment;
- Articulate with the university's McNair Scholars program to support at least one BSEE student per year in the McNair program and in his/her matriculation to graduate school;
- Develop a "learning community" of BSEE majors and engage faculty and upper classmen and women in providing support and mentoring; and
- Train and support upper classmen and women to be effective mentors and counselors.

The infrastructure required for these initiatives includes a full-time Recruitment/Advisor for high demand fields in the School of Computing and Engineering Sciences. This person will work in close cooperation with the University to coordinate the specific recruitment and retention activities identified above as well as utilize faculty, juniors, and seniors in the BSEE program to assist with specific activities. The Recruitment/Advisor and the ETMD faculty will also work with other

areas of the University, such as the Admissions Office, Academic Advising, African American Studies, American Indian Studies, Chicano Education and the College Assistance Migrant Programs, Women's Studies and the campus TRIO programs (Student Support Services and McNair Scholars). The Program Coordinator (see question 2) will also be on-site at NSCC to recruit and advise students.

EWU is an active participant in the Washington State Coalition for Engineering Education (WASCEE). The vision of this organization is to create "a unified K-16 engineering and engineering technology education and pre-engineering teacher education program, resulting in the increase of skilled workers through an accessible, affordable and efficient educational delivery system." The goals of WASCEE include:

- Implement state-wide Project Lead the Way K-12 pre-engineering curriculum, starting in the 3rd grade or sooner that continues through the 12th grade.
- Adopt and implement new and existing student success strategies to achieve high participation and retention rates among women and students of color.
- Provide system-wide teacher and counselor professional development that informs and educates about engineering and engineering technology occupations.
- Develop system-wide articulation agreements – K-12 to community colleges and 4-year colleges and universities.

Appendix 2:

Employment Security Department Data

Unemployment insurance claimants for February 2003 and February 2004

Title	February 2003 Employed	February 2003 Unemployed	February 2004 Employed	February 2004 Unemployed
Computer Hardware Engineers	1,414	72	1,464	32
Electrical Engineers	3,767	191	3,858	182
Electronics Engineers, Except Computer	3,631	98	3,734	65
Total	8812	361	9056	279

Appendix 3:

Written statements of the external reviewers commissioned by EWU

California State University, Chico
Chico, California 95929-0888
Department of Electrical and Computer Engineering
530-898-5343 Fax: 530-898-4956

Michael Brzoska, Ph.D.
Professor and Chair
Cheney Hall 101
Cheney, WA 99004

September 5, 2003

Dear Dr. Brzoska:

I have reviewed the proposal for the new degree in Electrical Engineering (EE) at Eastern Washington University. You have done a complete and thorough job of presenting the case for the new program. My evaluation of the proposal is separated into four parts: Program Need, Program Description, Assessment, and Finances.

Program Need

The proposed EE program seems to fit well with the University's role and mission. The proposal cites several studies that show the need for more electrical engineers in the state of Washington and that the institutions currently offering the EE degree are not capable of fulfilling the need. I think that some of the studies that support the need were conducted prior to the collapse of the dot-coms and perhaps the growth in the demand for EE should be reevaluated. (I realize that the Washington economy and job potential are different than California's, but in California we have seen a drastic drop in the demand for new electrical engineers. Fewer than 50% of the last two graduating classes of EE have had job offers in the engineering profession at the time of graduation. Also, a number of our recent graduates have been terminated from their positions in the past two years.) Part of the reason for the decline in demand for EE is that many of the traditional employers of our graduates are shifting development and support to offshore groups in Asia and Eastern Europe. You may want to evaluate the impact of this trend on the demand in Washington. Since Washington has a strong position in the power generation industry and that industry seems to be growing, it may be that there will be an increased demand for EE graduates with an option in power generation and distribution.

Program Description

The goals and objectives established for the EE program are consistent with what one would expect of a contemporary electrical engineering program. They are compatible with the outcomes ABET requires each engineering program to demonstrate.

Since ABET requires that all graduates from an accredited engineering program meet the outcomes ABET specifies in it's a) through k) criteria, it would be helpful if your program outcomes were mapped to the ABET outcomes. (During the last two years many programs are adopting the ABET a)-k) outcomes directly and not trying to rephrase or reword them. You might want to consider this for the future since it eliminates the need to map your outcomes to ABET's.) There seem to be words missing in the first two outcomes, but I believe I understand the intent.

In section 2.2.2 it seems to imply that students will not be admitted to the EE program until the junior year. Into what program will freshmen be admitted?

The description of how the program meets all seven ABET criteria is well done and complete. It is possible that some ABET evaluators would be concerned that the only engineering science included in the program is electrical engineering. However, I feel that you could make a good argument that your students will be able to meet the program's objectives without any other engineering courses. (Our program now requires only two engineering science courses outside of electrical engineering: statics/dynamics and thermodynamics for EEs.)

Linking the classrooms between Cheney and NSCC sounds like a good way to leverage the capability of a limited size faculty. However, I question how the laboratory assignments at NSCC will be monitored when the faculty is in Cheney. Is there a plan to provide adequate supervision in the laboratories? Lack of qualified faculty at NSCC could present a safety problem especially in the power lab. I wonder too how students at NSCC will receive advising if the full-time EE faculty is all located in Cheney. Also, you will need qualified faculty at the NSCC campus to direct students who are taking the capstone course. Perhaps one of the new faculty should be located at the NSCC campus.

The report recognizes the need for additional EE faculty with the terminal degree. Implementation of the degree should not proceed until at least one of the new EE faculty member has been hired.

The four-year program outlined on page 20 of the report looks fairly typical and is quite similar to the one we follow at Chico. I am a little surprised that you do not require any courses in DSP, Controls, or Communications. Since the description of the requirements for the new faculty included all of these areas, it seems like one or more should be required. My only criticism of the four-year plan is that the capstone course is only one quarter long. Many schools, including Chico, extend the capstone course over an entire year. At Chico we have found that dedicating the first semester to requirement and design and the second semester to implementation and testing works fairly well. You might want to think about splitting the 4-unit capstone class into two 2-unit classes. This would also balance out the unit load in the senior year.

I do have a question about the statistics classes, MATH 385 and 380. Do they cover applications in electrical engineering? ABET want you to include the application of probability and statistics to your specific engineering field. Perhaps your math class does this, or you cover applications in one of the required EE classes.

Assessment

Assessment is an important issue for all engineering departments. My faculty has been working on the issue for over two years and we are still worried that we will not meet the newest ABET guidelines. In a white paper published this summer ABET specifically states that several forms of assessment upon which many programs have been relying are not adequate. They specifically state the student self-assessment can not be used as a primary means of verifying that program outcomes have been met. The white paper also states that grades in a course by themselves do not provide an adequate assessment of the students' mastery of the program's outcomes. Since the assessment described in your

proposal relies on these two forms of assessment, I do not believe it would meet ABET's requirements. (I am including a copy of the white paper on assessment for your review.)

It is my understanding programs must verify that graduating seniors have met the program's educational outcomes. The survey described in your assessment plan uses employers and recent graduates. I think you will need a more direct assessment of the outcomes at the time the students graduate to satisfy ABET. (I don't claim to be the ultimate expert on assessment, but I am an ABET program evaluator for electrical and computer engineering.)

Finances

I was confused by the statement that, "No new state funds are being requested to implement the Electrical Engineering program." After looking more closely at Table 4., I assume that is because money is being taken away from some other program at EWU and **the total support from the state for EWU will remain unchanged. I commend you on** getting a commitment for $60,000 per year for equipment replacement and maintenance. This is extremely important for a high technology program like electrical engineering. Having a line item in the budget for this will give your program a real advantage over programs like mine that have to rely on donations and grants to fund replacement and maintenance.

Based on my experience I question whether a 1/2-time department secretary is adequate. Speaking from personal experience, one full-time secretary is barely enough for a department with 7 faculty and 300 students. Since your department will not be that large in the beginning, you can probably get by with less secretarial help than we have.

Summary

The key areas for a new degree proposal have been fully addressed by the electrical engineering proposal. Since assessment is an ongoing issue for many engineering programs, it is not surprising that there is room for improvement in this area. My other area of concern is how faculty will be able to adequately supervise, monitor, and advise student at a remote campus. I believe that changes in these two areas will result in a superior proposal.

If you have any questions regarding my comments and observations, I would be happy to discuss them with you.

Respectfully,

Larry L. Wear, Ph.D.
Professor and Chair
Electrical and Computer Engineering Department
California State University, Chico

SCHOOL OF ELECTRICAL
ENGINEERING AND
COMPUTER SCIENCE

October 23, 2003

Esteban Rodriguez-Marek
Department of Engineering Technology and Multimedia Design
Eastern Washington University
Cheney, WA 99004

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Dear Dr. Rodriguez-Marek,

Thank you for selecting me to review you proposed Bachelor and Science degree in Electrical Engineering. I am very familiar with EWU as I grew up in Cheney. From 1990-1999, I was on the faculty of the School of Electrical Engineering and Computer Science at Washington State University in Pullman. Since leaving WSU four years ago, I have been department head of Electrical & Computer Engineering and, more recently, Director of the School of Electrical Engineering & Computer Science at Oregon State University. I have read the new degree proposal carefully and I support many aspects of the proposal. As requested, my comments will be targeted toward whether the curriculum 1) meets the needs of higher education in the State of Washington, 2) avoids duplication with other programs in the state and region and 3)is expected to provide a quality education to students wishing to pursue a career in Electrical Engineering.

Does this curriculum meet the needs of higher education in the State of Washington?
From the data presented, it appears there is a market for students who would like to get Electrical Engineering degrees in the Seattle area but are not currently served. This market would be derived from students that do not currently get accepted into the Electrical Engineering Department at University of Washington as well as students that are currently working in the area. While data is presented from the AEA that there is a large need for these degrees also in the Spokane area, there have been attempts by other institutions to address this need. In the end, WSU found that the student numbers in Computer Engineering were not there to support the program. From this past experience, one would expect that the student numbers would be low in the Spokane area.

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Does this program avoid duplication with other professional education programs in the state and region?

This program does in fact duplicate other professional programs in the Seattle area (UW). However, University of Washington does not have the capacity and so this proposed program serves a need in that community. Currently, there is not an Electrical Engineering program in the Spokane area other than Gonzaga's - which is private. Washington State University is located very close to Spokane/Cheney but this will not address place bound students. The proposed program will provide local access for working professionals and the courses will be offered at times that accommodate these students.

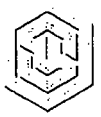
Does this proposal provide a quality professional education in Electrical Engineering?

The curriculum outlined is very standard for an Electrical Engineering program. It will provide students with both the depth and breadth needed to become practicing Electrical Engineering professionals.

The labs both at North Seattle and in Cheney appear to be well equipped with state of the art instrumentation. As the student numbers increase, more fully equipped laboratory stations will be needed and new advanced equipment will be required.

My one concern with this proposal is if the necessary resources will be available to provide a high quality education. The proposal outlines that courses in North Seattle will be taught remotely. I have experience teaching students in multiple locations through the WHETs system (in Washington) as well as a system of delivery we have in Oregon. While the technology is improving all the time, I believe it is difficult to provide a truly high quality undergraduate education through electronic transmission. The primary problem is that it is difficult to have the two-way interaction needed to really help students succeed. There may be ways to overcome this if on-site instructors are appointed to provide help sessions and office hours.

The other area that potentially compromises the quality of the program is delivering too many classes with adjunct faculty. I know from my own experience that there are excellent people that can be hired for this role – and I have done this at Oregon State University. However, it is imperative that there be a critical mass of faculty resident at the site to give continuity and ensure the quality of the program. This will also be important if accreditation is sought. For the ABET accreditation, there must be a critical mass of faculty affiliated with the program. I believe that number is at least five faculty.



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A third area that helps to ensure a quality program is faculty that are actively practicing their professions either through outside employment or research. The proposal stated that this program is much less expensive to deliver because faculty will not be engaged in research or at least not to a high degree. I would encourage the administration to balance the teaching activities with research activities to help keep the faculty abreast of new developments in the field. This is very important in areas such as Electrical Engineering since the field is changing so rapidly. One example of these developments are the handheld computers of today are far superior to the desktop computers of less than 10 years ago.

Overall, I believe the proposal outlines a viable Electrical Engineering program. With the appropriate resources, it has the potential of becoming a high quality program that will complement many of Washington's already first-rate education opportunities. Please don't hesitate to contact me if there are any further questions. I would be happy to discuss this further if needed.

Sincerely,

Terri Fiez

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Fodus Communications, Inc
Connecting Anywhere Anytime

Michael Brzoska, Ph.D.
Professor and Chair
Cheney Hall 101
Cheney, WA 99004

October15, 2003

Dear Dr. Brzoska:

I have reviewed the proposal for establishing a new Electrical Engineering (EE) program at Eastern Washington University (EWU). I am in favor of the effort to have a new EE program at EWU because this will meet the statewide and nation-wide demands for hi-tech engineers and the current proposal is realizable.

Let me summarize my own current scientific and industry standings. I received my Ph.D. in 2002 and M.S. in 1997 (both in EE) from Washington State University (WSU). My doctoral research is focused on wireless communication, especially channel capacity and modulation over fading channels, and vector quantization for source coding. My master research is concentrated on system and control theory, particularly, saturation problems for continuous- and discrete-time linear systems. I have published five journal papers on *IEEE Trans. On Communications* and *IEEE Trans. On Automatic Control* etc., and some conference papers. When I was a student at WSU, I served as a reviewer for several journal and conferences in my field. Between July 2001 and Dec. 2002, I was with Advanced Micro Devices, where my main responsibility is to design and develop IEEE 802.11A-standard wireless communication product. Currently, I am with Fodus Communications, Inc. at Sunnyvale, CA, where I am responsible for designing and developing IEEE 802.11 B/G/A-standard wireless network products.

My comments on the proposal will be concentrated on the curriculum part.

As U.S.A is on the cutting edge of the information and technology economy, more attention should be paid to educate the U.S. workforce. This is the only way to keep U.S. as the leader of hi-tech industry in the world. Therefore, the new program should train students and make them well prepared for their careers.

The proposal has provided a good series of traditional EE courses at the first two years for undergraduate study, which lays a good foundation for students to pursue further study. Meanwhile, proposed labs and equipment are excellent since most of commonly used equipment in industry, for instance, logic analyzer, signal generator, spectrum analyzer, microprocessor testboard and software tools such as Matlab, are covered.

Current industry demands students with broad background in EE both in terms of using fundamental theory and equipment/tools. Only when students meet these demands can they have good capability to face challenges. The proposal notices these demands.

Personally, I think there should be more elective courses in junior and senior years for intensive and extensive studies. I understand that EWU needs to hire new professors for these courses. As a senior engineer with experience of working at both big and start-up companies at Silicon Valley, my suggestion is to improve the Tentative 4-yr Plan (at page 20) by adding more elective courses and corresponding labs. Simply putting, courses on digital signal processing (dsp), control theory, analog circuit, image processing, wireless communication, analog and digital communications, should be offered. Schedules for elective course have to be changed accordingly. The following suggestions are under assumption that some new faculty will join EWU before the courses are offered.

1. A probability and statistics courses, "Engineering Probability and Statistics", should be offered at fall or winter quarter in junior year. This course is different from a pure Mathematics course. The topics in this course should cover those concepts commonly used in communication and dsp, for example, correlation, spectrum, Gaussian distribution, hypothesis testing and filtering. The goal for this course is to allow students directly touch topics in dsp and communication when they take related EE courses later.

2. Since "Signals and Systems I" does not need any pre-requite EE courses, I suggest that this course should be moved to fall quarter and "Signals and Systems II" offered at the next quarter. In this way, at the spring quarter of junior year, students can choose their first dsp, and/or control theory and/or communication course(s). Otherwise, students will find it difficult to cope with the subsequent elective courses because of timing.

3. Today, communication applications can be found in optical/wireless/satellite communications, IC design and storage system. Thus, strengthening communication courses is crucial. A three-quarter communications course series can be considered: analog communication for the first quarter, digital communication for the next two quarters. The topics for digital communication might cover fundamentals of coding theory (block code and convolutional code), various modulation schemes and their application for telecom channel, equalization, detection and system performance evaluation. The objective is that, after three-quarter study, a student can work with experienced communication engineers with solid communication theory and skills.

4. As digital circuit is in extensive use, dsp techniques are applied almost everywhere. Therefore a two-quarter dsp course series, "DSP I" and "DSP II", are recommended when students already finish "Signals and Systems II". "DSP I" can discuss A/D and D/A converters, quantization noise, filter structure and baseband filter design. "DSP II" will address adaptive filter design, transform algorithm such as DCT, FFT and their applications. It should be noted that "DSP I" can help students understand analog circuit design better. Some application examples used in industry might be provided in "DSP II", for instance, JPEG standard and/or IEEE 802.11 standard.

5. To make the EE program span more extensively, many elective courses and the related labs on digital circuit design, analog circuit design, wireless communication, and control, should be added. For instance, "Linear Control Theory I" can consist of classical control theory and "Linear Control Theory II" will address modern control theory. The basic concept of feedback can be thoroughly discussed in these two courses so that students can reduce difficulties in learning dsp, analog circuit and even RF circuit. If possible, Verilog and/or VHDL design tool(s) might be introduced in digital circuit course since they are used in practical design. In general, courses in the last two quarters are elective and at that time students should spend a large amount of time on their design project or research project with their advisors. Courses, which can find wide application in industry, are recommended for the last two quarters.

Below is my suggested tentative 2-yr plan. Due to the recession in hi-tech industry, I think that finding qualified faculty with industry connection and experience is not much difficult. However, to enhance labs might be subject to budget. Note that offering these courses is contingent on instructors, student registration and labs/tool preparation.

Tentative Junior and Senior Plan

Fall		Winter		Spring	
Junior					
Digital Circuits I	4	Digital Circuits II	4	Microprocessor I	4
Electronics I	5	Electronics II	5	Energy System	5
Signal and System I	5	Signal and System II	5	Analog Communication	4
Engineering Probability and Statistics	4	General Chemistry	5	Fundamentals of Devices and Materials	4
Physics IV and Lab	5			Linear Control Theory I	4
Senior					
Linear Control II	4	Analog Circuit Design	5	Wireless Communication	4
Digital Communication I	4	Digital Communication II	4	Image Processing	4
DSP I	4	DSP II	4	VLSI Circuit Design	5
Technical Writing	5	Digital Circuit Design	4	Capstone	5

I do believe that EWU has capability to establish its EE program since it already has solid foundation. The only thing remained to do is to find some appropriate and qualified faculty who can provide some of the elective courses and extend labs. If this can be done, the proposal will be surely a superior one.

Best regards,

Ping Hou

Agilent Technologies, Inc.
24001 East Mission Avenue
Liberty Lake, Washington 99019-9599

509 921 4001 telephone
509 921 3991 facsimile

Agilent Technologies

October 30, 2003

Esteban Rodriguez-Marek
Assistant Professor
Department of Engineering Technology and Multimedia Design
Eastern Washington University
Cheney Hall 101
Cheney, WA 99004

Dear Esteban,

Thank you for the opportunity to review the EWU EE program proposal.

In general, it looks good. I have just a couple of comments for your consideration:

With regard to the growth in electrical engineering job opportunities, we are anticipating a continued slow economy and there are many experienced, qualified EE's seeking employment in a tight market. I am concerned that the statistics that have been cited may be overstating the near term opportunity for EE's. Will there be a delay in getting to these numbers? This may not be germane to the proposal, but I do not see as optimistic an EE job market as is portrayed in the proposal, at least in the near term.

With regard to curriculum, the core curriculum looks solid. Areas of focus listed are Signal Process and/or Communication Systems, VLSI Design and Analog Integrated Circuit Design, and Power Systems and Controls. These are all great focus areas, my concern is that students will get a good breadth of knowledge, but may not get the depth, specialization that could come with a more focused curriculum approach. This may make it more difficult for students to focus, develop a passion and expertise around a specific field of study.

I am excited to see the proposal advancing; it is great for the area and good for Agilent to have this program available locally at Eastern.

Best regards,
Terry Decker
Product Marketing Manager
Agilent Technologies

td/rb

Subject: RE: EWU EE draft proposal
Date: Fri, 31 Oct 2003 16:20:04 -0800
From: Tuanhai Hoang <tuanhai.hoang@qualitelcorp.com>
To: Michael Brzoska <michael.brzoska@mail.ewu.edu>

Mick,

I review your proposal and its look fine from my observation. I would like to see a clearer direction for the student assessment as you continue to define the program. For the program to be successful we need to make sure that we get students that are prepared and can succeed in the EE program.

Tuanhai

Tuanhai Hoang, President
www.qualitelcorp.com
4608 150 AVE NE
Redmond, WA 98052
425-702-8889 Fax 425-702-8885

-----Original Message-----
From: Michael Brzoska [mailto:michael.brzoska@mail.ewu.edu]
Sent: Monday, October 20, 2003 11:17 AM
To: tuanhai.hoang@qualitelcorp.com
Subject: EWU EE draft proposal

Tuanhai Hoang,
For your review, I have attached Eastern Washington University's draft proposal to the Higher Education Coordinating Board to offer a BS in Electrical Engineering at the North Seattle Community College campus in 2004 and at the Cheney campus in 2006. You response may be placed in a letter or email sent to me. (Mick Brzoska, CHN 101, Eastern Washington University, Cheney, WA 99004) Thank you for agreeing to undertake this review. Mick

Appendix 4:

Correspondence from higher education institutions and interested organizations

JAN 26 2004

UNIVERSITY OF WASHINGTON

OFFICE OF THE PROVOST

January 22, 2004

Elaine Jones
Associate Director
Higher Education Coordinating Board
917 Lakeridge Way
Olympia, WA 98504

Dear Elaine:

We have received Eastern Washington's proposal to establish a Bachelor of Science in Electrical Engineering, starting in fall 2004 at North Seattle Community College, and moving to their Cheney campus in fall 2006. The appropriate UW faculty and administrators have reviewed this version of the proposal and find that will not conflict with our existing BS in Electrical Engineering.

The University of Washington congratulates Eastern Washington University on its efforts in putting together these proposals. We wish everyone involved much luck in this new endeavor.

Sincerely,

Frederick L. Campbell, Ph.D.
Dean and Vice Provost Emeritus
Undergraduate Education

cc: Robert Corbett, Coordinator of New Programs, UW
Dr. Ron Dalla, Dean and Vice Provost, Undergraduate and Graduate Studies, EWU
Dr. Michael Brzoska, Professor and Chair, Department of Technology, EWU
Dr. James Sulton, Executive Director, HECB

220 Mary Gates Hall Box 352800 Seattle, Washington 98195-2800 (206) 616-7175 FAX: (206) 616-7105

Elaine Jones

From: Jane Sherman [Sherman@energy.wsu.edu]
Sent: Monday, February 09, 2004 2:43 PM
To: Elaine Jones
Subject: EWU EE

Elaine –

Washington State University would like to comment that if EWU can get their proposed BS Electrical Engineering program accredited, their students get licensed, and employers want to hire their graduates, they will be making a contribution to the state's economy and workforce, and we wish them well.

-- Jane

Jane C Sherman

Associate Vice Provost for Academic Affairs

Washington State University

925 Plum Street SE, Bldg 4

Olympia WA 98504-3165

w. 360-956-2060

f. 360-956-2162

c. 360-790-9107

from WSU 8-2060

CENTRAL WASHINGTON UNIVERSITY

December 15, 2003

Elaine Jones, Associate Director
Higher Education Coordinating Board
PO Box 43430
Olympia WA 98504-3430

Dear Ms. Jones:

The appropriate Central Washington University personnel have reviewed Eastern Washington University's proposal to offer a Bachelor of Science in Electrical Engineering at North Seattle Community College in fall 2004 and at Cheney beginning fall 2006. We do not anticipate that this program will have an impact on any current or proposed Central Washington University programs.

We support the Eastern Washington University's efforts and wish them success as they pursue this program.

Sincerely,

Dave L. Soltz
Provost/Senior Vice President for Academic Affairs

cc Brian Levin-Stankevich, Provost and Vice President for Academic Affairs, EWU
Dean R. Bowers, CEPS, CWU
Dean M. Miller, COTS, CWU

Office of the Provost and Senior Vice President for Academic Affairs
400 East University Way . Ellensburg WA 98926-7503 . Office: 509-963-1400 . Fax: 509-963-2025

NORTH SEATTLE COMMUNITY COLLEGE

Office of the President
9600 College Way North
Seattle, WA 98103-3599
(206) 527-3601 • Fax: (206) 527-3606

February 26, 2004

Elaine Jones
Associate Director
Higher Education Coordinating Board
217 Lakeridge Way
Olympia, WA 98504

Dear Ms. Jones and Members of the Higher Education Coordinating Board:

I am writing to share with you my enthusiasm and advocacy for the establishment of a baccalaureate program in Electrical Engineering at Eastern Washington University and the potential it provides to increase the number of trained professionals in Western Washington in a cost-effective way.

In approving this proposal, our legislature recognized the positive impact this program would have on our state and recognized the board's critical role in working with the legislature to create this pilot enterprise. North Seattle Community College is absolutely prepared to do its part in helping to establish and conduct this program in a partnership with EWU. In addition to our strong reputation for academic excellence, which will prepare students in their first two years of the program, we will also provide electrical/electronics laboratories for the program's use. The joint nature of our enterprise is a cost-effective approach to addressing the need to develop these workers in our state.

As you know, the electrical engineering field is under tremendous pressure for new employees, as pointed out by an American Electronics Association taskforce, which said: "State colleges and universities must increase capacity and improve access for would-be students." Yet, in the western part of the state, where the demand is highest, students are being turned away by the University of Washington, which receives 100 more applications in a year than it can admit. This proposal surely fits with your own master plan, which acknowledges the importance of "adding capacity in instruction, instructional support, and research space needed to implement the master plan initiatives for enrollment growth in high-demand fields."

We believe this pilot approach to responding to the need for more electrical engineers will not only be successful, but also demonstrate an effective way for our state to selectively create similar programs in other areas of high demand and limited resources.

Let me close by sharing with you how serious our interest is in satisfying the initiative of our legislature and in meeting the guidelines you are responsible for establishing. If I can provide additional information I hope you will feel free to contact me at any time.

Respectfully,

Ronald H. LaFayette

Ronald H. LaFayette, Ed.D.
President

c: Steve Jordan, EWU

Independent Colleges of Washington

January 20, 2004

Ruta Fanning
Interim Director
Higher Education Coordinating Board
917 Lakeridge Way
P.O. Box 43430
Olympia, WA 98504-3430

JAN 22 2004

Dear Ms. Fanning;

I am responding to the request by Eastern Washington University (EWU) to create a new electrical engineering degree program in Cheney and at North Seattle Community College. As you look at the program proposal with the overall good of the state in mind, I think you will find that with the capacity available in the independent colleges and other public colleges, it is wiser to utilize that capacity before creating more. The state can currently meet with existing programs twice the demand being proposed by the EWU proposal. To fail to utilize the current capacity, but to encourage the shift of students from the independent sector to a new state college program, puts in jeopardy the ability to grow programs when the demand is really there.

I raise three main issues for your consideration: demand, capacity and cost.

Demand: In 1999 - 2000 there was tremendous demand for electrical and computer engineering graduates in Washington state. The Eastern Washington University adequately outlines this demand. At the time, there were more companies starting in Washington than anyone could count. Engineering graduates were being hired faster than they could imagine and being paid very large salaries because of their specific skills. It was quite a time! Unfortunately, it wasn't too long before the floor fell and the companies were closing faster than they'd opened, and people lost their jobs and the high salaries even more quickly.

The reality of 2004 is much different. Students and employers are much more cautious. Demand has dropped significantly and as highlighted by the external reviewers, one citing "fewer than 50% of the last two graduating classes have had job offers in the electrical engineering profession at the time of graduation. Also, a number of our recent graduates have been terminated from their positions in the last two years." (Wear) We all hope the economy will turn around, but I believe the reality of the recent boom and bust cycle has made employers much more cautious about building up their work force with specialized technical skills. Students are more sophisticated about evaluating the work force than we may give them credit.

Capacity: There are currently six ABET accredited electrical engineering programs in Washington state: UW, WSU, Seattle Pacific, Seattle University, Gonzaga University, and Walla Walla College. These colleges equally represent the eastern and western sides of the state. Nearly all these programs have capacity to serve additional students, and most would like to

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expand if the demand was present. In the independent sector, an additional 100 students could be this fall if there was sufficient demand.

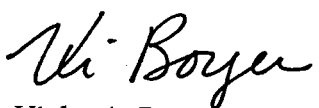
For example, even though Gonzaga University has grown more than 40% in the last five years, and demand for engineering in general is up, the electrical engineering program had a 50% drop in interested applicants last fall. In the west, Seattle University has a very well developed transfer and articulation plan with the Seattle Community Colleges to assure easy transition from the community colleges into the electrical engineering major.

In addition, Washington State University testified at the House Higher Education hearing that they have capacity in electrical engineering also.

Cost: Eastern indicates its expectation to become ABET accredited. That process is an expensive one because of the requirement of faculty, equipment and other resources. Electrical engineering is one of the most expensive programs at a university, costing about $16,000 - 20,000 per student. To become ABET accredited, the college must have a "critical mass" of faculty on a campus to provide the quality program. Generally this is interpreted to mean at least five faculty on a campus. The Eastern proposal includes three faculty divided between two campuses. It is not clear how they will be able to achieve ABET accreditation under current plans. This issue was also raised by outside reviewers. "...the program is delivering too many classes with adjuct faculty...it is imperative that there be a critical mass of faculty resident at the site to give continuity and ensure the quality of the program...I believe that number is at least five." (Fiez)

We encourage you to utilize the current capacity at the independent colleges and state colleges before beginning another program when demand is unclear and fiscal resources are constrained.

Sincerely,



Violet A. Boyer
President and CEO

GONZAGA UNIVERSITY

SCHOOL OF ENGINEERING

January 20, 2004

Ruta Fanning
Interim Director
Higher Education Coordinating Board
917 Lakeridge Way
P.O. Box 43430
Olympia, WA 98504-3430

Dear Ms. Fanning;

I am responding to the opportunity to submit comments regarding the request by Eastern Washington University (EWU) to create a new electrical engineering degree program in Cheney and at North Seattle Community College. This is a proposal that has caused significant anxiety at Gonzaga University, particularly within the School of Engineering, and I want to outline some of the concerns expressed by our faculty, administration, and external constituencies who support Gonzaga engineering education. Attached to my letter is a separate one-page summary of issues raised by our Department of Electrical and Computer Engineering (EE and CpE).

As Dean of Engineering, I have frequent dialogue with engineering deans at other universities throughout the U.S. During the past two or so years, a repeated topic of conversation has been the steadily declining demand for engineering graduates, most especially in the fields of EE, CpE, and computer science. I believe a consensus of those deans would agree that this is not simply a symptom of an economic downturn, nor a transitory phenomenon that will disappear with robust economic growth, but rather a fundamental structural shift in engineering employment by major U.S. companies. These feelings have certainly been confirmed by many of my high-level corporate contacts, who have indicated that they are sending more and more engineering design work to other countries, where the low-cost engineering services help them to compete more effectively in a global market. The recent article in the American Society for Engineering Education (ASEE) magazine, *Prism*, cited in the Attachment, clearly documents what has happened and what is likely to continue in the future. As Rep. Don Manzullo (R-Ill.), chairman of the House Subcommittee on Small Business, said, the movement of these jobs offshore is "not a trend, but an avalanche." The *Prism* article listed data from a recent *Business Week* story, citing more than 8,000 jobs in electronics, hardware, and software engineering to be moved to India and China by just four U.S. companies over the next few years.

What have been the impacts of this job movement on engineering education at Gonzaga? We have electrical engineering graduates from two years ago still unable to find a job, despite high GPAs and excellent references. We have electrical engineering graduates who have abandoned their discipline and gone to graduate school in business and law. We have had shifts of a number of current students out of electrical and computer engineering into civil and mechanical engineering, which have not been hit as severely with job movements overseas. The net effect has been a steady decline in total enrollment in the Department of Electrical and Computer Engineering, while our other engineering programs enjoy record high enrollments.

SPOKANE, WASHINGTON 99258-0026 • (509) 323-3522 • FAX (509) 323-5871

Nowhere has this enrollment decline been more pronounced than in our freshman EE majors, dropping 54% in the past two years. What is also worrisome is that I have now met with approximately 40 new prospective engineering students for the fall of 2004, and when, as always, I asked which areas of engineering they think they would like to pursue, only one person said electrical. Based on these trends (or, as Rep. Manzullo said, avalanche), when I recently received the resignation of one of our faculty members in the EE and CpE Department, I decided to deny the request to begin a search to fill this position for next year. Therefore the loss of engineering jobs to other countries, and the certainly related lack of demand for our EE graduates, has had a significant and perhaps permanent impact on our enrollment in this field.

This spiral has led to another difficult issue for me as Dean—the corresponding increase in our unused capacity to educate EE students. With a faculty in this Department that is among the highest paid of any at the University, we are teaching classes—both required and elective—with sometimes just a handful of students. We have seven separate laboratory facilities for students of this Department that sit idle much of the time. Through University money, corporate grants, and alumni funding, these labs represent hundreds of thousands of dollars of investment in equipment. To summarize this gap between enrollment and capacity, data recently submitted to the HEC Board Staff show that we could double our current EE enrollment (an additional 62 students) at almost no additional resource requirements.

The under-utilized facilities and faculty results in a marginal cost for educating each new EE student that is far less than the current average cost of instruction, and most certainly even further below the true cost per student of the proposed EWU programs that require new faculty, new facilities, and new equipment. Because most of that program investment would be at taxpayer expense, I definitely question the wisdom of that use of funds when state resources are so scarce. To achieve an ABET-accredited EE program requires the level of investment that we have made at Gonzaga, and that other long-standing EE programs in the state have made, and it is not something that can result from cutting corners, relying on adjunct faculty, or having minimal equipment and lab facilities. In fact, the one concern about the Gonzaga EE program, cited by the 2002 ABET visit team, was that we had only eight full-time faculty supporting this program and its areas of specialization, and they thought we needed more!

Given all these concerns that we have raised, I would urge you to carefully consider the impacts of approving the EWU proposal, and to examine other, more cost-effective ways of using the current excess capacity for EE education in the state. As one Vice President of one of Spokane's largest engineering employers recently stated to me, when discussing the EWU proposal, "It sounds like this is a case of more lines being thrown into the fishing hole to catch fewer fish."

Sincerely,

Dennis R. Horn, PhD, P.E.
Dean of Engineering
Gonzaga University

Seattle University
FOUNDED 1891

Office of the Dean
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900 Broadway
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January 23, 2004

Ruta Fanning
Interim Director
Higher Education Coordinating Board
917 Lakeridge Way
P.O. Box 43430
Olympia, WA 98504-3430

Dear Ms. Fanning;

I am responding to the proposal by Eastern Washington University (EWU) to create a new electrical engineering degree program in Cheney and at North Seattle Community College. First, I take exception to the statement concerning lack of duplication. There are very large and substantial electrical engineering programs at both the University of Washington and Washington State University, and significant accredited programs in electrical engineering at Seattle University, Gonzaga University, St. Martin's College, and Seattle Pacific University, to name a few. Each program will potentially be hurt by the addition of yet another program for which there is no current demand. If there is a rising job market, then why are graduates in electrical engineering having such a tough time getting jobs? The programs mentioned above can certainly handle additional students, and can certainly meet the demand for the next several years.

Second, the prospect of offering four-year degree programs at a 2 year community college such as NSCC, and particularly a stand-alone engineering one, doesn't provide much confidence that quality is a consideration. There is no infrastructure to support the four year degree, no faculty colleagues, and no upper division mathematics or physics.

Third, EWU doesn't yet have an electrical engineering degree. If there is a demand in the Spokane area, then perhaps they should start one there. Exporting a new degree, before they have established one on their home campus, is not academically sound and appears to be a political venture for EWU to gain a foothold in Western Washington.

Fourth, WSU is not overenrolled in engineering, while the university does seem to be at capacity. WSU has been relatively silent on this issue because while their campus is overcrowded on the whole, they have space in engineering.

Fifth, the overall number of graduates in electrical engineering will not increase if EWU starts a program at NSCC. It will simply draw students from the existing programs with no net gain. The programs at private universities in Western Washington may not survive.

In summary, this is a bad idea, at the wrong time, at the wrong place, and for the wrong reason. What could be worse?

Sincerely,

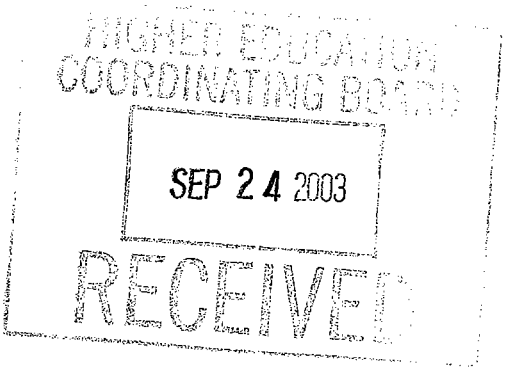
George Simmons

George Simmons, Dean, PhD, PE
College of Science and Engineering

Washington Council

AeA

Advancing the Business of Technology



September 23, 2003

Bruce Botka
Higher Education Coordinating Board
917 Lakeridge Way
P.O.Box 43430
Olympia, WA 98504-3430

Dear Bruce

Thank you for allowing AeA the opportunity to elaborate on the need for electrical engineers and engineers in general.

AeA represents a large cross section of the high-technology industry, with over 130 member companies located here in Washington. The industry requires varied components to help it innovate and grow, one of the highest priorities being educated and motivated individuals. High-tech companies have helped Washington State's economy to expand substantially in the past decade and we believe that as the national economy improves we will again be a positive influence in stabilizing our state's fiscal future. However, to do so companies must have a pool of individual who have the skills to create new products and processes. Engineers provide much of the essential research and development knowledge to innovate and grow. Without them employers will be forced to hire from out of state, internationally, or choose to move their business where they can find people with the appropriate skills. The expansion of BSEE degree granting opportunities to comprehensive colleges and universities will help to ensure a greater pool of engineers.

The September 2003 edition of Business 2.0 ran a series of articles under the heading "*A Job Boom is Coming*". In that article Anthony Carnevale the former Chairman of the National Commission for Employment Policy is quoted, "We are about to face a demographically driven shortfall in labor that will make the late 1990s seem like a minor irritation." In that same article the Bureau of Labor Statistics projects that 8 of the 10 fastest growing jobs through 2010 will be in the engineering and technology area. The other two will be medical assistants and personal and home care aides.

Over the last two decades the demand for engineers has grown dramatically and is projected to continue to grow. Over roughly the last decade the number of engineers (BS through PhD) graduated at public and private universities has fallen across the U.S. by about 4 percent, in Washington State by almost 4.5 percent. The drop in electrical engineering degrees in our State has been higher than the average. Add to this the aging electrical engineering workforce and the consequences for the U.S. and Washington State's economy are dire.

The report "*U.S. Competitiveness 2001: Strengths, Vulnerabilities and Long-Term Priorities*" co-authored by Michael Porter, Harvard Business School and Debra van Opstal of the Council on Competitiveness recognized this problem. "Less obvious, but of critical importance, were declines in the share of national resources committed to frontier research and decreasing

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numbers of science and engineering degrees in every field outside the life sciences. This undercut the long-term U.S. capacity for innovation; the required levels of R&D investment and technical talent cannot be declining in an economy driven by knowledge creation and the deployment of technology."

Porter and Opstal recommended several policy priorities including: "expand(ing) the pool of U.S. scientists and engineers. They raised concerns that "the supply of scientists, engineers and technicians is growing substantially faster abroad then in the United States. More nations are acquiring high-end innovation capabilities with concerted investment in research and development and technical talent."

While investment in frontier research and balancing the nation's R&D portfolio in fundamental disciplines is primarily a federal responsibility, educating scientists and engineers falls clearly in the state's purview.

The decline in engineering degree production is not a problem that developed overnight and it will not be corrected overnight. It has many contributing factors including the failure of math and science education in the K-12 system for many years, and the generally poor quality of counseling regarding engineering in high schools and middle schools especially for women and students of color. Washington State and national education reform efforts are beginning to address some of these problems. A grant recently funded by the State Board for Community and Technical Colleges for pre-engineering education and teacher preparation will be another significant step forward.

As more students graduate from high school with the requisite math and science skills and an increased interest in engineering as a career option, we need to have adequate space for them in engineering schools - both public and private. We also need to expand the avenues for attaining an engineering degree especially for economically disadvantaged and under-represented minorities. Porter and Opstal recognize this problem and include in their recommendations, the need to "raise post-secondary enrollment rates for underrepresented minorities, and increase access to higher education for students from low-income households."

The National Science Board's report to the President "*Science and Engineering Indicators 2000*" projected that "During the 1998-2008 period, employment in S&E (science & engineering) occupations is expected to increase at almost four times the rate for all occupations..... Within engineering, electrical-electronic engineering is projected to have the biggest absolute and relative employment gains, up by 93,000 jobs, or about 26 percent."

This report also states that "Although the diverse spectrum of institutions provides relatively high access to higher education in the United States, research-intensive universities produce the majority of engineering degrees.... Research universities are less prominent in the undergraduate S&E education of underrepresented minority groups than they are in the overall student population. Black students receive their undergraduate S&E education mainly in comprehensive universities and liberal arts colleges."

The Eastern Washington University BSEE proposal that includes a true 2+2 component has the potential for reaching students that might otherwise not be attracted to or able to afford a university education especially in the engineering field. It also provides for much needed electrical engineering degree capacity.

The AeA sincerely hopes that the Higher Education Coordinating Board will approve the EWU BSEE proposal; we also hope you will look for other ways to increase the state's science and engineering degree production.

David Ellwood of the Aspen Institute's Domestic Strategy Group forecast that "The static educational level of the workforce, coupled with the retirement of the baby boomers, means that there won't be enough skilled workers to meet continuously rising demand over the next 20 years." This will be no truer than in the high-tech industry.

If the downward trend in engineering degrees is not reversed businesses in Washington State and the U.S. will have no choice but to go to where the skilled workers are.

Sincerely,

Terry

Terry Byington
Executive Director

HECB Legislative Issues: 2004 Status Report

-- Reflects legislative actions during regular session --
The Governor must act by April 3 on bills listed here that were passed by the Legislature

Issue	HECB Perspective	Legislative Action
Supplemental operating budget	The HECB supports proposals for new higher education enrollments, including additional high-demand FTE for 2004-05.	The Legislature's 2004 supplemental budget (**HB 2459**) includes funds for nearly 3,000 new full-time enrollments for 2004-05; larger Promise Scholarship grants; new research at the UW and WSU; and expansion of the Health Professional Scholarship and Loan Repayment Program.
Supplemental capital budget	The HECB endorsed several capital proposals by the colleges and universities in December 2003.	The Legislature adopted a $218 million supplemental capital budget (**HB 2573**) that includes $115 million for higher education and raises the biennial total for higher education to $874 million. The budget includes $31.6 million for a WSU academic center in Spokane, $19.5 million for a new instructional building at Grays Harbor College, $14.4 million to replace the welding and auto facility at Bellingham Technical College, and $8.1 million to accelerate completion of Senior Hall at EWU.
High-demand enrollments	The HECB is administering a competitive high-demand grant program for the 2003-05 biennium that includes $8.3 million to support more than 500 new enrollments in high-demand fields.	The Legislature's supplemental budget includes $3.6 million each for the HECB and SBCTC to expand existing grant programs in 2004-05. The new funds would support 324 new full-time enrollments in high-demand fields at the four-year institutions and 877 FTE at the two-year colleges. The budget also would permit private four-year colleges to compete for 2004-05 funds along with the public universities and TESC.
Promise Scholarship funding	HECB recommends increasing Promise Scholarship grants to equal two years of full tuition at two-year colleges.	The Legislature's supplemental operating budget includes $2.3 million to increase the 2004-05 award to 51% of CTC tuition (currently 43%). Income eligibility for the 2004 high school graduating class would be reduced to 120% of median family income (currently 135%).

Issue	HECB Perspective	Legislative Action
2004 Strategic Master Plan for Higher Education	The HECB approved its interim plan in December, calling for the state to increase the number of students who earn college degrees and to improve higher education's responsiveness to the state's economic needs.	The House of Representatives approved **HCR 4416** to guide the HECB's development of the final strategic master plan, but the Senate failed to act on the resolution before the end of the regular session.
HECB role and responsibilities	The HECB collaborated with a legislative work group during the 2003 legislative interim to examine options to update and revise the board's statutory role and responsibilities.	The Legislature passed **HB 3103**, the first comprehensive revision of HECB authorizing statutes since the board was established in 1985. Among other changes, the bill would establish an advisory council to work with the board and create a new process to assess the need for additional programs and graduates in various economic sectors.
HECB member confirmations	Board members Miguel Bocanegra, Jesus Hernandez and Sam Smith were scheduled for confirmation in 2004.	The Senate Higher Education Committee recommended all three board members for confirmation, but the full Senate did not take final action on any gubernatorial appointments to higher education boards.
Collaboration and communication among education organizations		Several bills were passed by the Legislature to promote collaboration among education groups, including **SB 5677,** which would require annual meetings to promote a seamless system, and **SB 6561,** which calls for more dual-credit options for high school students.
Performance contracts pilot project	The HECB interim strategic master plan endorses a pilot project under which the state would develop performance contracts with public colleges and universities.	Legislation requested by Governor Locke (**HB 2681** and **SB 6332**) was not approved by the Legislature during the regular session. However, the legislative operating budget permits the governor to develop a "prototype" of a performance contract for a research university, with assistance from the HECB.

Issue	HECB Perspective	Legislative Action
Degree-Granting Institutions Act	The HECB administers the law under which out-of-state colleges are authorized to operate in Washington.	The Legislature passed **HB 2381**, which would revise and update the Degree-Granting Institutions Act, including provisions to safeguard Washington consumers from "diploma mills."
Transfer and articulation	The HECB supports improvements in the student transfer process as articulated in the board's 2004 interim strategic master plan.	The Legislature passed **HB 2382** to improve the transfer system for students with three specific projects. The bill would direct the HECB to convene work groups to 1) develop transfer degrees for specific academic majors; 2) develop a statewide system of course equivalency to help students transfer; and 3) conduct a 'gap analysis' of upper division capacity for transfer students at the public universities.
Financial aid fund management	HECB supports making maximum use of financial aid funds for their intended purposes.	For the third consecutive year, the House passed legislation (**HB 1123)** to establish a financial aid account in which unspent funds would be retained for the following year. In 2002, the Governor vetoed similar legislation following Senate passage, but the bill has died in the Senate each of the last two years.
Future Teachers Conditional Scholarships and Loan Repayments	The HECB supports programs to recruit and retain public school teachers and has administered four such programs over the past 21 years.	**HB 2708,** to consolidate several existing future teachers conditional scholarship programs, was approved by the Legislature, which also added a loan repayment option. The bill would make available about $440,000 that has accumulated in accounts whose use is restricted under current law.
Branch campuses	In its 2004 interim master plan, the HECB calls for branch campuses to offer selected lower-division courses and-or evolve into four-year universities as appropriate in each region.	The Legislature passed **HB 2707** to reaffirm the mission of the branch campuses as upper division and graduate education centers, and to permit the campuses to plan their future development. Among other provisions, the bill authorizes each campus to make recommendations to the HECB by Nov. 15, 2004, regarding its future evolution. The HECB is to add "policy options" to the institutions' recommendations in a report to the Legislature by Jan. 15, 2005.

Issue	HECB Perspective	Legislative Action
UW Bothell-Cascadia merger **UW Bothell and WSU Vancouver lower-division courses**	In its 2004 interim strategic master plan, the HECB calls for branch campuses to offer selected lower-division courses and-or evolve into four-year universities as appropriate in each region.	Legislation calling for the merger of the UW Bothell branch campus and the co-located Cascadia Community College (**HB 2843)** was not approved . However, the legislative operating budget directs the UW Bothell and WSU Vancouver to submit to the Legislature by Dec. 15, 2004, plans to phase in lower-division courses.
Affirmative action in college admissions	The HECB supports the limited use of affirmative action criteria in student admissions policies	Neither the House nor Senate passed Governor Locke's legislation **(HB 2700** and **SB 6268)** to allow four-year universities to maintain a diverse student population by considering race, ethnicity, or national origin in admitting students, without using quotas, set-asides or point values for affirmative action considerations.

Progress Report Table – Mar 15 2004.doc
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WASHINGTON HIGHER EDUCATION COORDINATING BOARD

March 2004

2004 Supplemental Operating Budget Proposals
Higher Education Highlights

Governor (Revised 1/14/04)	House (As Passed House 2/25/04)	Senate (As Passed Senate 2/25/04)	Agreed to Budget (3/10/04)
Enrollment			
$30 million to support up to 5,200 additional enrollments: High-demand – HECB - $10 million (909 FTEs) and SBCTC - $10 million (approximately 1,800 FTEs) General enrollments – $10 million with $5 million for the SBCTC (1,389 FTEs) and $5 million for the four-year institutions (1,111 FTEs)	$28.9 million to support up to 4,791 additional enrollments: High demand – HECB - $6.4 million (581 FTEs) and SBCTC - $6.4 million (approximately 960 FTEs) General enrollments – $16.1 million with $8.7 million for the SBCTC (1,908 FTEs) and $7.4 million for the four-year institutions (1,342 FTEs)	$2.5 million for 227 additional high-demand enrollments at four-year institutions (independent institutions allowed to participate) to be managed by the HECB $100,000 to HECB for modeling and evaluation of various higher education enrollment and funding scenarios	$17.5 million to support approximately 2,960 additional enrollments: High-demand – HECB - $3.6 million (324 FTEs – independent institutions allowed to participate) and SBCTC - $3.6 million (approximately 534 FTEs) General enrollments – $10.4 million with $5.6 million for the SBCTC (1,223 FTEs) and $4.8 million for the four-year institutions (877 FTEs) $100,000 to HECB for modeling and evaluation of various higher education enrollment and funding scenarios

Governor (Revised 1/14/04)	House (As Passed House 2/25/04)	Senate (As Passed Senate 2/25/04)	Agreed to Budget (3/10/04)
Promise Scholarship			
$6.7 million to increase award up to 80% of CTC tuition	$4.3 million to increase award to 63% of CTC tuition; income eligibility for high school graduating class of 2004 is reduced to 120% of median family income	No change from original biennial budget	$2.3 million to increase award to 51% of CTC tuition; income eligibility for high school graduating class of 2004 is reduced to 120% of median family income
State Need Grant			
$811,000 to cover new high-demand enrollments	$3 million to cover new high-demand enrollments plus all currently unserved students; would prevent increases in grant amounts for 2004-05	$4.9 million to cover new high-demand enrollments plus 35% of the currently unserved students with grant amounts increased by 7%	$4.5 million to cover new high-demand enrollments plus 35% of the currently unserved students with grant amounts increased by 7%
Health Professional Scholarship & Loan Repayment Program			
$2 million enhancement to bring FY 05 total to $3.1 million	Same as governor	Same as governor	Same as governor
Research			
$3 million ($1.5 million each for UW and WSU) for research in high-demand and technologically advanced fields	$2.9 million for UW Proteomics Center $1.5 million to WSU for several specified research activities	$1.3 million for UW Proteomics Center	$1.6 million for UW Proteomics Center $380,000 to WSU for two specified research activities
CTC Part-time Faculty Health Benefits			
$3.7 million	$14.7 million	$14.7 million	$14.7 million

Governor (Revised 1/14/04)	House (Chair proposal 2/23/04)	Senate (Chair proposal 2/23/04)	Agreed to Budget (3/10/04)
Other			
$160,000 for "Washington Center Scholarships"		$160,000 for "Washington Center Scholarships"	$60,000 for "Washington Center Scholarships"
	$300,000 for transition math project to reduce the need for remedial math		$300,000 for transition math project to reduce the need for remedial math
	$205,000 to the HECB for program assessment and approval (HB 3103)		$205,000 to the HECB for program assessment and approval (HB 3103)
		$675,000 for UW-Tacoma Autism Center	$675,000 for UW-Tacoma Autism Center
		$500,000 for UW Korean studies endowment	
		$90,000 for SW Washington baccalaureate need study by Washington State Institute for Public Policy	
	$4 million is shifted from the operating budget to the capital budget	$2.675 million reduction for "efficiency savings"	$2.675 million reduction for "efficiency savings"
	$840,000 for plant operations and maintenance		

WASHINGTON
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March 2004

2004 Supplemental Capital Budget
Status and Highlights

On March 11, the Legislature adopted a $218 million statewide supplemental capital budget for the 2003-05 biennium. Of that total, higher education received $114.9 million, including $1.5 million in general state bonds, $114.6 million in Gardner-Evans bonds, and a reduction of $1.2 million in local institutional building account appropriations.

The supplemental budget will increase higher education's 2003-05 total biennial capital appropriation to $874 million. Highlights of new projects approved by the Legislature include:

- $4 million for a new Infectious Disease Laboratory and $4 million for ongoing classroom improvements at the University of Washington Seattle campus.
- $31.6 million for construction of the Washington State University Academic Center at the Riverpoint Campus in Spokane.
- $8.1 million for accelerated completion of the Senior Hall project at Eastern Washington University.
- $2 million for the Central Washington University/Highline Higher Education Center and $1.5 million for the Central Washington University/Wenatchee Higher Education Center.
- $1.6 million for remodeling a lab facility at The Evergreen State College.
- $4.9 million for the renovation of Bond Hall at Western Washington University.
- $19.5 million for a new instructional building at Grays Harbor College and $14.4 million for replacing the welding and auto facility at Bellingham Technical College.

The attached tables summarize the institutions' revised capital funding levels for the 2003-05 biennium, and provide funding detail for new projects approved by the Legislature.

2003-2005 Higher Education Capital Budget
Fund Summary

	2003-2005 Capital Budget Adopted in 2003	2004 Supplemental Capital Budgets Governor	House ESHB 2573	Senate ESSB 6233	Final	Revised 2003-2005 Capital Budget
University of Washington						
General State Bonds	$59,703,001	$5,000,000	$0	$0	$0	$59,703,001
Gardner-Evans Bonds	$21,400,000	$24,613,164	$9,000,000	$16,390,000	$14,750,000	$36,150,000
Education Construction Fund	$20,108,000	$0	$1,525,000	$0	$0	$20,108,000
Local Capital Accounts	$22,000,000	$0	$700,000	$700,000	$700,000	$22,700,000
Total	**$123,211,001**	**$29,613,164**	**$11,225,000**	**$17,090,000**	**$15,450,000**	**$138,661,001**
Washington State University						
General State Bonds	$47,277,001	$3,400,000	$0	$3,400,000	$0	$47,277,001
Gardner-Evans Bonds	$33,360,000	$12,650,000	$35,000,000	$33,600,000	$35,500,000	$68,860,000
Education Construction Fund	$7,876,000	$0	$598,000	$0	$0	$7,876,000
Local Capital Accounts	$29,303,000	$0	$0	$0	$0	$29,303,000
Total	**$117,816,001**	**$16,050,000**	**$35,598,000**	**$37,000,000**	**$35,500,000**	**$153,316,001**
Central Washington University						
General State Bonds	$10,688,001	$0	$0	$0	$0	$10,688,001
Gardner-Evans Bonds	$12,600,000	$2,000,000	$4,462,000	$4,462,000	$6,462,000	$19,062,000
Education Construction Fund	$1,886,000	$0	$143,000	$0	$0	$1,886,000
Local Capital Accounts	$9,562,000	$1,163,500	($1,798,500)	($1,798,500)	($1,798,500)	$7,763,500
Total	**$34,736,001**	**$3,163,500**	**$2,806,500**	**$2,663,500**	**$4,663,500**	**$39,399,501**
Eastern Washington University						
General State Bonds	$12,191,326	$0	$0	($6,000,000)	$0	$12,191,326
Gardner-Evans Bonds	$19,000,482	$8,120,012	$8,120,012	$14,120,012	$8,120,012	$27,120,494
Education Construction Fund	$1,726,000	$0	$131,000	$0	$0	$1,726,000
Local Capital Accounts	$6,300,000	$0	$0	$0	$0	$6,300,000
Total	**$39,217,808**	**$8,120,012**	**$8,251,012**	**$8,120,012**	**$8,120,012**	**$47,337,820**

2003-2005 Higher Education Capital Budget
Fund Summary

	2003-2005 Capital Budget Adopted in 2003	2004 Supplemental Capital Budgets Governor	House ESHB 2573	Senate ESSB 6233	Final	Revised 2003-2005 Capital Budget
The Evergreen State College						
General State Bonds	$6,300,001	$0	$0	$0	$0	$6,300,001
Gardner-Evans Bonds	$21,500,000	$3,100,000	$1,600,000	$1,600,000	$1,600,000	$23,100,000
Education Construction Fund	$584,000	$0	$44,000	$0	$0	$584,000
Local Capital Accounts	$8,500,000	($1,600,000)	($1,600,000)	($1,600,000)	($1,600,000)	$6,900,000
Total	**$36,884,001**	**$1,500,000**	**$44,000**	**$0**	**$0**	**$36,884,001**
Western Washington University						
General State Bonds	$11,082,330	$1,150,000	$0	$0	$0	$11,082,330
Gardner-Evans Bonds	$5,618,000	$3,750,000	$4,900,000	$4,900,000	$4,900,000	$10,518,000
Education Construction Fund	$2,814,000	$0	$213,000	$0	$0	$2,814,000
Local Capital Accounts	$8,050,000	$0	$0	$0	$0	$8,050,000
Total	**$27,564,330**	**$4,900,000**	**$5,113,000**	**$4,900,000**	**$4,900,000**	
						$32,464,330
Community and Technical Colleges						
General State Bonds	$263,601,455	$0	$1,056,007	$0	$1,513,000	$265,114,455
Gardner-Evans Bonds	$56,611,574	$34,962,749	$41,602,749	$43,030,749	$42,940,749	$99,552,323
Education Construction Fund	$17,754,000	$0	$1,346,000	$0	$0	$17,754,000
Local Capital Accounts	$42,040,026	$0	($1,056,007)	$2,962,000	$1,499,000	$43,539,026
Total	**$380,007,055**	**$34,962,749**	**$42,948,749**	**$45,992,749**	**$45,952,749**	**$425,959,804**
Spokane Intercollegiate Research & Technology Institute						
Gardner-Evans Bonds	**$0**	**$0**	**$290,000**	**$290,000**	**$337,000**	
Total - Higher Education	**$759,436,197**	**$98,309,425**	**$106,276,261**	**$116,056,261**	**$114,923,261**	**$874,359,458**
General State Bonds	$410,843,115	$9,550,000	$1,056,007	($2,600,000)	$1,513,000	$412,356,115
Gardner-Evans Bonds	$170,090,056	$89,195,925	$104,974,761	$118,392,761	$114,609,761	$284,699,817
Education Construction Fund	$52,748,000	$0	$4,000,000	$0	$0	$52,748,000
Local Capital Accounts	$125,755,026	($436,500)	($3,754,507)	$263,500	($1,199,500)	$124,555,526

2004 Higher Education Supplemental Capital Budget
Project Detail
(Amounts reflect net 2003-2005 appropriation changes)

Institution/Project	Governor	House ESHB 2573	Senate ESSB 6233	Final
University of Washington				
Life Sciences II	$2,000,000	$0	$0	$0
Communications Infrastructure	$8,500,000	$2,000,000	$2,000,000	$2,000,000
Emergency Power Expansion	$7,813,164	$700,000	$700,000	$700,000
Photonics Research Laboratory	$4,300,000	$0	$0	$0
Guthrie Hall Renovation	$3,000,000	$0	$3,000,000	$3,000,000
Infectious Disease Laboratory	$4,000,000	$4,000,000	$4,000,000	$4,000,000
Classroom Improvements	$0	$3,000,000	$5,000,000	$4,000,000
Preventative Facility Maintenance & Building Repairs	$0	$1,525,000	$0	$0
UWB/CCC Off-Ramp	$0	$0	$2,390,000	$1,750,000
Total	**$29,613,164**	**$11,225,000**	**$17,090,000**	**$15,450,000**
Washington State University				
Academic Center Building: Spokane	$6,650,000	$31,600,000	$31,600,000	$31,600,000
WSUnet Infrastructure	$6,000,000	$0	$2,000,000	$0
Wastewater Reclamation Project	$3,400,000	$3,400,000	$3,400,000	$3,400,000
Preventative Facility Maintenance & Building Repairs	$0	$598,000	$0	$0
Agricultural Research Facility Renovation and Repair	$0	$0	$0	$500,000
Total	**$16,050,000**	**$35,598,000**	**$37,000,000**	**$35,500,000**
Eastern Washington University				
Senior Hall Renovation	$8,120,012	$8,120,012	$14,120,012	$14,120,012
			-$6,000,000	-$6,000,000
Preventative Facility Maintenance & Building Repairs	$0	$131,000	$0	$0
Total	**$8,120,012**	**$8,251,012**	**$8,120,012**	**$8,120,012**

2004 Higher Education Supplemental Capital Budget
Project Detail

(Amounts reflect net 2003-2005 appropriation changes)

Institution/Project	Governor	House ESHB 2573	Senate ESSB 6233	Final
Central Washington University				
Highline Higher Education Center	$2,000,000	$2,962,000	$2,962,000	$4,962,000
		-$2,962,000	-$2,962,000	($2,962,000)
Health, Safety and Code Requirements	$450,000	$450,000	$450,000	$450,000
Infrastructure Preservation	$713,500	$713,500	$713,500	$713,500
CWU/Wenatchee Higher Education Center	$0	$1,500,000	$1,500,000	$1,500,000
Preventative Facility Maintenance & Building Repairs	$0	$143,000	$0	
Total	**$3,163,500**	**$2,806,500**	**$2,663,500**	**$4,663,500**
The Evergreen State College				
Life Safety, Code Compliance	-$1,600,000	$0	$0	$0
Lab 1 Remodel	$3,100,000	$1,600,000	$1,600,000	$1,600,000
		-$1,600,000	-$1,600,000	-$1,600,000
Preventative Facility Maintenance & Building Repairs		$44,000	$0	
Total	**$1,500,000**	**$44,000**	**$0**	**$0**
Spokane Intercollegiate Research & Technology Institute				
Emergency Repairs	$0	$290,000	$290,000	$337,000
Western Washington University				
Bond Hall Renovation	$3,750,000	$4,900,000	$4,900,000	$4,900,000
	$1,150,000	$0	$0	$0
Preventative Facility Maintenance & Building Repairs	$0	$213,000	$0	$0
Total	**$4,900,000**	**$5,113,000**	**$4,900,000**	**$4,900,000**

2004 Higher Education Supplemental Capital Budget
Project Detail
(Amounts reflect net 2003-2005 appropriation changes)

Institution/Project	Governor	House ESHB 2573	Senate ESSB 6233	Final
Community and Technical Colleges				
Grays Harbor: Replacement Instructional Building	$19,471,749	$19,471,749	$19,471,749	$19,471,749
Peninsula: Science & Technology Building Replacement	$1,134,000	$1,134,000	$1,134,000	$1,134,000
Bellingham: Welding/Auto Facility Replacement	$14,357,000	$14,357,000	$14,357,000	$14,357,000
Lower Columbia: Instructional/Fine Arts Building	$0	$2,500,000	$2,500,000	$2,500,000
South Seattle: Training Facility	$0	$722,000	$722,000	$722,000
Spokane Falls: Business & Social Sciences Building	$0	$1,800,000	$1,800,000	$1,800,000
Wenatchee Valley: Anderson Hall & Portable Replacement	$0	$1,618,000	$1,618,000	$1,618,000
Minor Works: Program	$0	-$1,056,007	$0	$0
	$0	$1,056,007	$0	
Preventative Facility Maintenance & Building Repairs	$0	$1,346,000	$0	
UWB/CCC Off-Ramp	$0	$0	$2,390,000	$1,750,000
Columbia Basin: Building T	$0	$0	$2,000,000	$2,000,000
Highline: Higher Education Center				$550,000
Employability Collocation Study				$50,000
Total	**$34,962,749**	**$42,948,749**	**$45,992,749**	**$45,952,749**
Total New Appropriations - Higher Education	**$98,309,425**	**$106,276,261**	**$116,056,261**	**$114,923,261**
General Bonds	$9,550,000	$1,056,007	-$2,600,000	$1,513,000
Gardner-Evans	$89,195,925	$104,974,761	$118,392,761	$114,609,761
Local	-$436,500	-$3,754,507	$263,500	($1,199,500)
Education Construction Fund	$0	$4,000,000	$0	$0

WASHINGTON
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COORDINATING BOARD

March 2004

Student Academic Progress
Recommendations to Legislature

1. SB 5135

- In 2003, the Legislature passed and the Governor signed into law Senate Bill 5135, a bill dealing with student academic progress.

- Concern was expressed about the increasing number of years it takes to complete a baccalaureate degree and "lingering students."

- Concern was also expressed about state costs to educate undergraduates and the capacity needed to accommodate additional students.

- The law directed each public baccalaureate institution and the State Board for Community and Technical Colleges (SBCTC) to develop policies to ensure that enrolled undergraduates complete degree and certificate programs in a timely manner.

- These policies are to address students who do the following:
    - Accumulate more than 125 percent of the credits necessary to graduate;
    - Drop more than 25 percent of their class load during a term; and
    - Are on academic probation for longer than one term.

- The law directed each baccalaureate institution and the SBCTC to report to the Higher Education Coordinating Board (HECB) by January 30, 2004 on the following:

    - Policies adopted that ensure undergraduate students enrolled in degree or certificate programs complete their programs in a timely manner.

- Baseline data on the following: (1) number of students who accumulate more than 125 percent of credits needed to graduate; (2) number of students who drop more than 25 percent of their course credits; and (3) number of students who remain on academic probation for more than one quarter or semester.
- Policies and actions taken to eliminate barriers to timely completion of degree programs and to address course scheduling issues.

- The HECB was charged with summarizing the reports and reporting to the higher education committees. This report is to contain recommendations for additional legislative action, including whether increased tuition should be uniformly charged to students as an additional incentive for timely completion of degree and certificate programs.

2. Findings from Institutional Reports

- The following institutions reported to the HECB, as required by Senate Bill 5135:

  - University of Washington-Seattle
  - University of Washington-Bothell
  - University of Washington-Tacoma
  - Washington State University-all campuses
  - Central Washington University
  - Eastern Washington University
  - The Evergreen State College
  - Western Washington University
  - State Board for Community and Technical Colleges

  These reports are attached.

- The HECB reviewed these reports at its February 17, 2004 meeting.

  - Staff prepared a summary report entitled "Preliminary Report on Student Academic Progress" (attached).
  - A representative from each institution made oral presentations to the Board.

- In their reports, the institutions summarized their current academic policies regarding declaring a major, completing a degree, dropping/adding courses, and placing students on academic probation. They also discussed the enforcement and communication of these policies as well as policy changes that had been made or were being contemplated.

3. HECB Conclusions

- Overall, the institutions did a commendable job of reviewing their policies and recognizing academic progress as a serious matter.

- By shining a light on academic progress, SB 5135 has had a positive impact on the policies and practices of the institutions regarding student academic progress. Academic progress is part of a larger issue of student support and student tracking. Do the students know what is being expected of them in their academic planning and are the institutions tracking the students to ensure that they are fulfilling their obligations? The review called for in SB 5135 helped the institutions evaluate their current practices and determine what, if anything, needed change. This process is still ongoing.

- An institution should be concerned with academic progress for many reasons. Foremost are considerations of what is best for the students. Another consideration is the budgeted capacity of an institution. For enrollment management purposes, it is in the institution's interest to move students along as efficiently as possible.

- The four-year institutions and SBCTC are in different stages of adopting and implementing policies that ensure undergraduates complete their programs in a timely manner. Some policies were in place prior to the legislation, some new policies have been adopted, and some policies are still being reviewed. The subject of academic progress is not an issue at The Evergreen State College. The community and technical college system, comprised of 34 colleges, will require more time to gather data.

- Two of the measures identified in SB 5135, excess credits and the dropping of courses, are implicit in the calculation of the Graduation Efficiency Index. This index has been around since 1997 and is used by the institutions as a management tool to identify areas where students are not moving through the system as well (e.g., transfer students in engineering and the sciences).

- Each institution should be recognized for its own role and mission. One policy will not fit all institutions.

- National comparison: Compared to other states, Washington appears to have a relatively efficient system of baccalaureate degree production. Comparing bachelor's degrees earned to the number of undergraduate students in baccalaureate institutions, Washington ranks first among the 50 states. Nationwide, one in five undergraduates (FTEs) enrolled in a public or private baccalaureate institution earns a bachelor's degree in a given year. In Washington, one in four undergraduates earns a bachelor's degree. If a student enters a baccalaureate institution in Washington, he or she is more likely to earn a bachelor's degree than in some other state. (States with a strong 2+2 transfer program generally do well with this indicator.)

- Sizing of problem: For the current academic year, the public baccalaureate institutions are expected to enroll over 90,000 FTE students, some 4,000 in excess of the state budgeted 86,000 FTE students.

  The number of students who graduated with more than 125 percent of the credits they needed to obtain their degrees was 1,800. If on average these students had been able to graduate with 15 fewer credits (equivalent of one academic quarter), the savings would have equaled 600 FTE students.

  The number of students who drop 25 percent or more of their course load after the 10th day following registration is less than 5,000. On an FTE basis, this number equates to roughly 1,300 FTEs. It is difficult to calculate what impact reducing this number would have on an institution. Some courses are "over-filled" with the expectation that students will drop later in the term (similar to airlines overbooking flights). Strategies to reduce course-dropping may result in fewer students initially being allowed into a course with no net gain of students taking more credits.

  The number of students who remain on academic probation for more than one quarter or semester is about 1,200 per year. In one sense, these are successful students. They are showing improvement in their grades so they are allowed to remain in school. Students who are not showing improvement are dismissed.

4. HECB Recommendations

- At this time, the HECB does not recommend that the Legislature take any specific action. The HECB and the Legislature are in the midst of developing the 2004 Strategic Master Plan. The Interim Strategic Master Plan, which the HECB submitted to the Legislature on December 15, 2003, called for improving educational efficiency. This subject of efficiency will continue to be reviewed before adoption of the Strategic Master Plan in June. It is likely that the 2004 Strategic Master Plan will include recommendations on academic progress as they pertain to the subjects of enrollment, accountability, and performance contracts.

- SB 5135 specifically asks whether increased tuition and fees should be uniformly charged to students as an additional incentive for timely completion of degree and certificate programs. SB 5135 allows institutions to impose a surcharge for students who: (1) accumulate more than 125 percent of the credits they need to complete their degrees/certificates; (2) drop more than 25 percent of their course load; or (3) remain on academic probation for more than one quarter or semester. The SBCTC reported that about one-half of the community and technical colleges are imposing tuition surcharges on students with excess credits who deviate from their graduation plans. The HECB already has a recommendation that, within constraints, institutions be granted local tuition-setting authority. The current statutory provision allowing surcharges is sufficient, with each institution determining for itself the best practices to reach its goals.

- SB 5135 addresses several specific issues related to higher education efficiency that will be considered as the state develops an ongoing system to gauge students' and institutions' progress toward statewide goals. State goals for efficiency in higher education should be expressed broadly and allow colleges and universities to determine how best to make progress toward them. This approach would provide institutions with management flexibility to achieve the goals, while recognizing differences in student needs and in the missions and programs of the individual colleges and universities.

RESOLUTION NO. 04-04

WHEREAS, In 2003, the Legislature passed and the Governor signed into law Senate Bill 5135, a bill dealing with student academic progress; and

WHEREAS, The law directed each public four-year institution and the State Board for Community and Technical Colleges (SBCTC) to develop policies to ensure that undergraduate students complete their degree and certificate programs in a timely manner; and

WHEREAS, These policies were to address students who (1) accumulate more than 125 percent of the credits required to complete their degree or certificate programs; (2) drop more than 25 percent of their course loads; and (3) remain on academic probation for more than one quarter or semester; and

WHEREAS, The law required each public four-year institution and the SBCTC to report to the Higher Education Coordinating Board by January 30, 2004 on the policies adopted regarding student academic progress, including baseline data on the number and characteristics of the students affected by these policies; and

WHEREAS, The Higher Education Coordinating Board was charged with summarizing these reports and developing recommendations for additional legislative action, including whether increased tuition and fees should be uniformly charged to students as an additional incentive for timely completion of degree and certificate programs; and

WHEREAS, The public four-year institutions and the SBCTC submitted their reports and made presentations to the Board on February 17; and

WHEREAS, The Higher Education Coordinating Board reviewed a summary of the institutions' reports on February 17 and submitted the summary to the Legislature's higher education committees on March 1; and

WHEREAS, The Higher Education Coordinating Board submitted the 2004 Interim Strategic Master Plan for Higher Education to the Legislature on December 15 and is in the process of finalizing the 2004 Strategic Master Plan for Higher Education; and

WHEREAS, The 2004 Strategic Master Plan for Higher Education likely will address efficiency in the areas of enrollment, accountability, and performance contracts;

THEREFORE, BE IT RESOLVED, That, at this time, the Higher Education Coordinating Board does not recommend that the Legislature take any specific action regarding student academic progress and that such recommendations, if any, will be included in the 2004 Strategic Master Plan for Higher Education; and

THEREFORE, BE IT FURTHER RESOLVED, That the Higher Education Coordinating Board believes that the current statutory provision allowing individual institutions to collect tuition surcharges from students who are not making adequate academic progress is sufficient; and

THEREFORE, BE IT FURTHER RESOLVED, That state goals for efficiency in higher education should be expressed broadly to allow colleges and universities to determine how best to make progress toward the goals, while recognizing differences in student needs and the missions of the individual colleges and universities.

Adopted:

March 25, 2004

Attest:

_____

Bob Craves, Chair

_____

Ann Ramsay-Jenkins, Secretary

WASHINGTON HIGHER EDUCATION COORDINATING BOARD

TAB 7

March 2004

Preliminary Report on Student Academic Progress (2nd Revised)

On February 17, administrators from each of the public four-year schools, as well as representatives from the State Board for Community and Technical Colleges (SBCTC), reported on their efforts to address Senate Bill 5135. The legislation enacted in 2003 directs the institutions to develop policies to ensure that undergraduates complete their degree and certificate programs in a timely manner.

The law required the Higher Education Coordinating Board (HECB) to summarize the information provided by the schools and report to the Legislature's higher education committees by March 1.

The law is especially relevant to the Board as it develops its Strategic Master Plan, which calls for improving educational efficiency to make the most of limited state resources and, specifically, reducing the number of students who graduate with excess credits.

This report is divided into four key components:

I. Review of Senate Bill 5135
II. Review of Other Academic Progress Indicators
III. Reports from the Institutions
IV. Summary and Recommendations

I. Review of Senate Bill 5135

In passing Senate Bill 5135, lawmakers were concerned about "lingering students" and the time it was taking for students to complete their baccalaureate degrees. They also were concerned about state costs to educate undergraduates and the capacity that would be needed to accommodate additional students in the future.

As a result, Senate Bill 5135 directed each baccalaureate institution and the State Board for Community and Technical Colleges to report to the HECB by January 30, 2004 on the following:

- **Policies adopted** that ensure undergraduate students enrolled in degree or certificate programs complete their programs in a timely manner. The policies were to address students who (1) accumulate more than 125 percent of the credits necessary to graduate; (2) drop more than 25 percent of their class load during a term; and (3) are on academic probation for longer than one term.

- **Baseline data** on the following: (1) number of students who accumulate more than 125 percent of credits needed to graduate; (2) number of students who drop more than 25 percent of their course credits; and (3) number of students who remain on academic probation for more than one quarter or semester.
- **Actions taken** to eliminate barriers to timely completion of degree programs and to address course-scheduling issues.

The HECB was charged with summarizing the reports and reporting to the higher education committees by March 1, 2004. The law also directed the HECB to include recommendations for additional legislative action, including whether increased tuition should be uniformly charged to students as an additional incentive for timely completion of degree and certificate programs. These recommendations will be discussed and adopted at the HECB's meeting on March 25.

II. Review of Other Academic Progress Indicators

A. Graduation Efficiency Index

In each of the past three biennial operating budgets, the Legislature and Governor have directed the Board to oversee a performance accountability system for Washington's public four-year colleges and universities.

Two of the six accountability measures that the public four-year institutions annually report to the HECB relate to efficiency:

- Graduation Efficiency Index (GEI) for Direct Entry Students; and
- Graduation Efficiency Index (GEI) for Transfer Students.

$$\text{GEI} = \frac{\text{Total Number of Credits Required for a Bachelor's Degree – (Transfer Credits)}}{\text{Total Number of Credits Earned, Dropped or Repeated at that Institution}}$$

Example 1: If a degree requires 180 quarter credits and the student has taken 180 quarter credits, the resulting GEI would be 100.0.

$$\text{GEI} = \frac{180 - 0}{180}$$

Example 2: If a degree requires 180 quarter credits and the student has earned, dropped or repeated 225 credits (25 percent more than required), the resulting GEI would be 80.0.

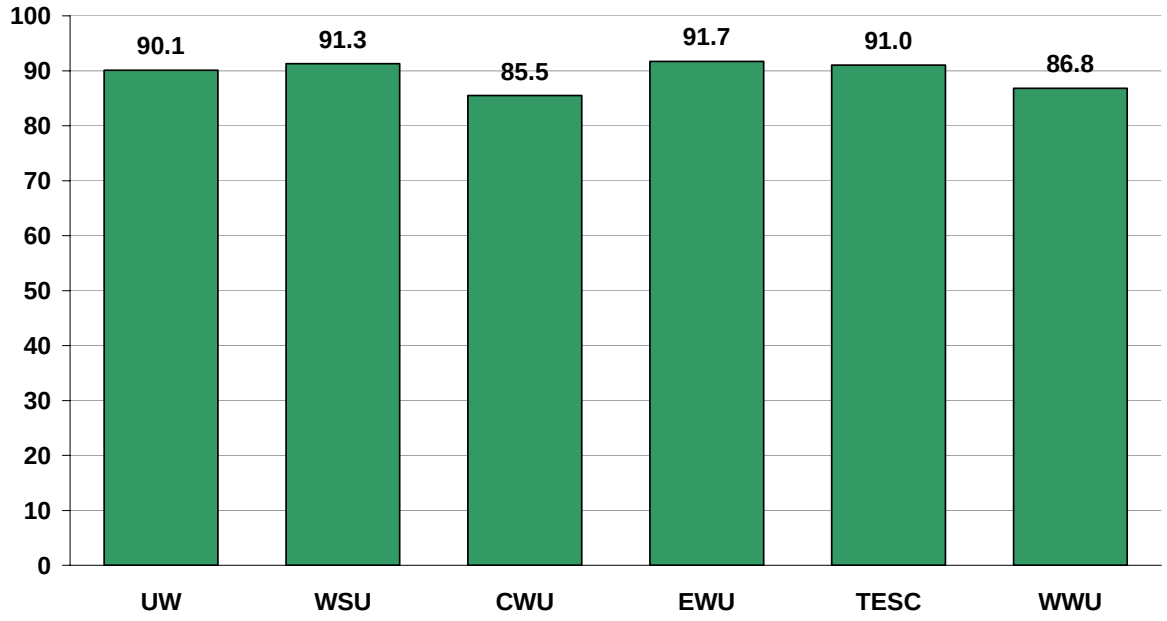
$$GEI = \frac{180 - 0}{225}$$

Example 3: If a transfer student who brought 90 credits to the baccalaureate institution and earned, dropped or repeated another 135 credits to earn a degree requiring 180 total credits, the GEI would be 67.0.

$$GEI = \frac{180 - 90}{135}$$

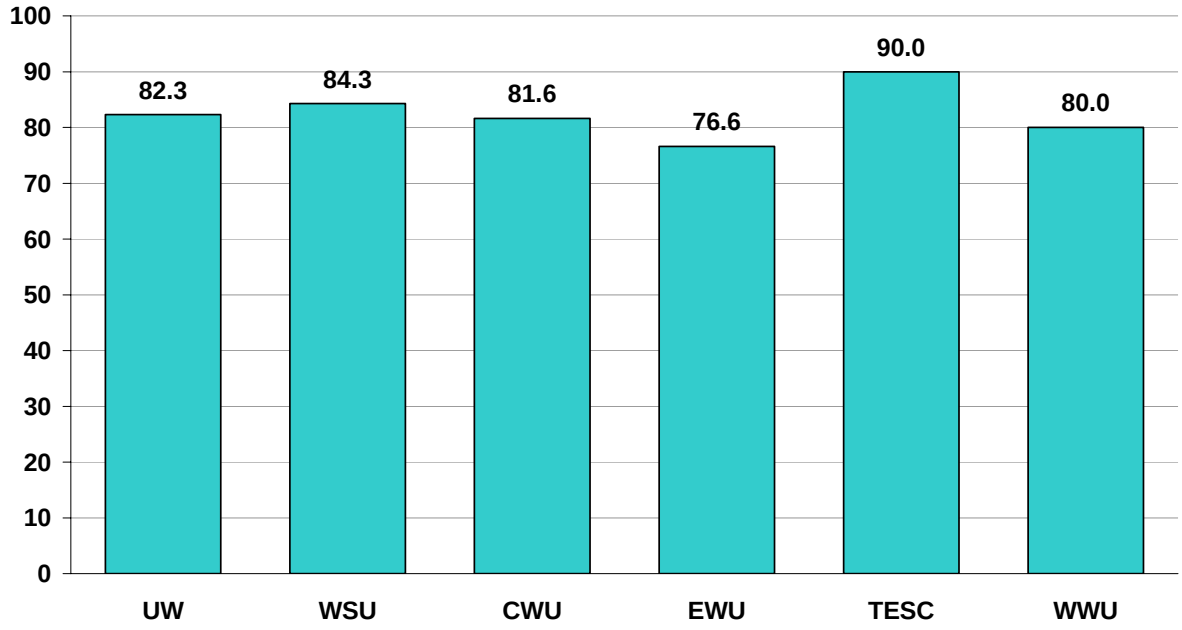
Review of these accountability measures and efforts to make improvements have been ongoing since the 1997-99 biennium.

Graph 1
Graduation Efficiency Index for Direct Entry Students
2002-03



In 2002-03, the GEI for direct entry "native" students ranged from 85.5 at Central Washington University to 91.7 at Eastern Washington University. Thus, students on average were earning, dropping or repeating 9 to 17 percent more courses than required for their degrees.

Graph 2
Graduation Efficiency Index for Transfer Students
2002-03



For 2002-03, transfer students had average GEIs ranging from 76.6 at Eastern Washington University to 90.0 at The Evergreen State College. Transfer students on average were taking between 11 to 30 percent more courses than required while attending the baccalaureate institution.

B. Bachelor's Degrees Earned Per 100 Undergraduate FTE Students

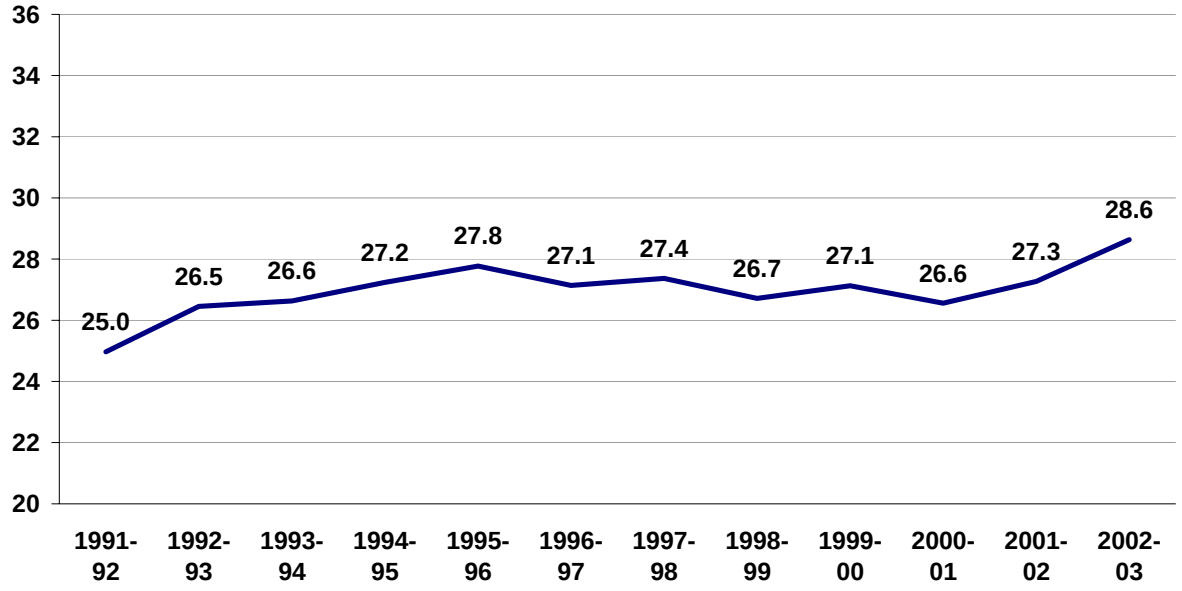
Another way to measure student academic progress is to compare the number of bachelor's degrees earned in a year to the number of undergraduate (FTE) students. In a four-year program, with all levels (freshman through senior) being of equal size, one would expect 25 graduates per 100 FTE students. In a two-year program, one would expect 50 graduates per 100 FTE students.

Because the Board's Interim Strategic Master Plan sets goals tied to the number of degrees earned, the number of students required to earn these degrees is a critical factor.

Over time, this indicator has generally increased. Branch campuses or an increasing share of transfer students earning baccalaureate degrees would account for some of the increase (transfer students require less time at the four-year institution). Over-enrollments and degrees earned by non-state supported students also would account for some of the upward movements.

Graph 3 compares degrees per 100 **budgeted** FTE enrollments. Improving retention rates and graduation efficiency also would increase the number of degrees earned per 100 FTE enrollments. Having uneven class sizes (e.g., a relatively large freshman class one year and, consequently, a relatively large senior class four years later) will cause the index to fluctuate.

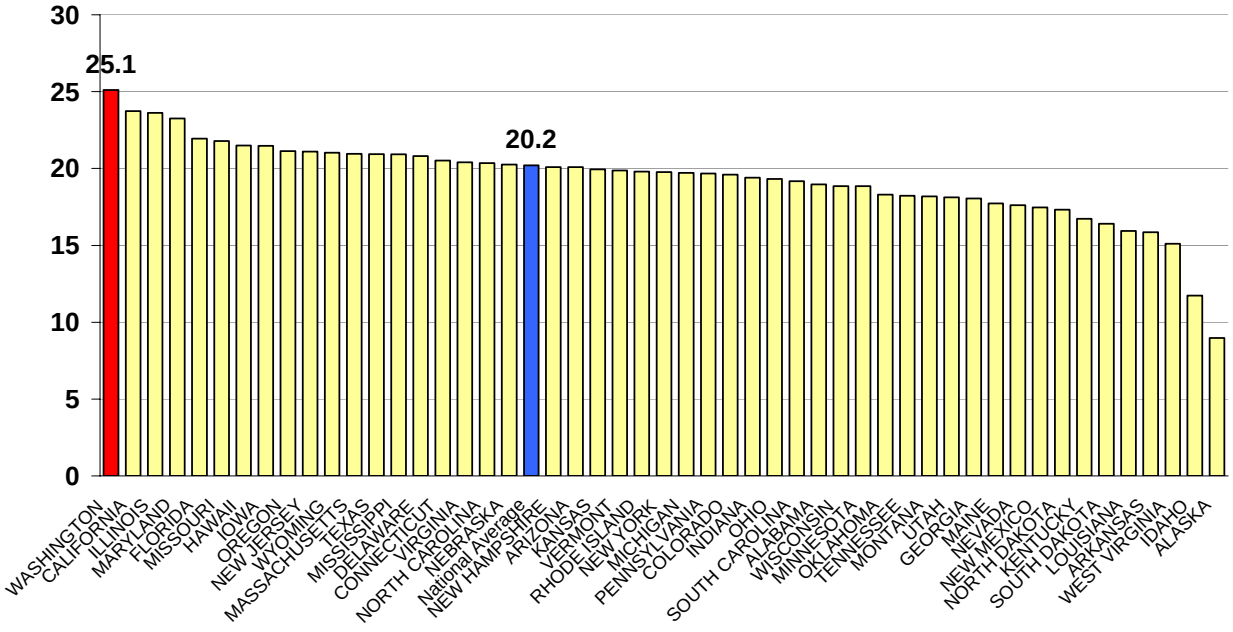
Graph 3
Bachelor's degrees earned per 100 budgeted FTE undergraduate enrollments (freshmen through seniors)
Total all public baccalaureate institutions



C. How Washington Compares to Other States

Washington compares very favorably relative to other states in the area of student academic progress. This can be surmised from data that has been previously examined in the most recent and prior master plans. Washington has ranked very low (46th or 47th) among the states in upper-division (junior and senior) participation, but has ranked more favorably (33rd) in bachelor's degrees earned. The implication is that if students make it to the upper-division level in Washington, they are more likely to earn their degrees. And, indeed, this is the case. Washington ranks first among the states in bachelor's degrees earned per 100 undergraduate FTE enrollments (actuals) at baccalaureate institutions.

Graph 4
Bachelor's degrees per 100 FTE undergraduates
Public and private baccalaureate institutions
2000-01



Nationwide, one-fifth of the undergraduates (FTE) enrolled in a public or private baccalaureate institution earn a bachelor's degree in a given year. In Washington, the rate is one-fourth.

Several factors account for this above-average performance. States with large community and technical college systems do well with this indicator. States with a strong 2+2 transfer program have students moving through baccalaureate institutions relatively more efficiently. Transfer students who bring credits with them require less time to earn their bachelor's degrees. Also, more marginal students may enter community colleges where community colleges are more readily available and may never enter a four-year institution.

III. Reports from the Institutions

The following institutions reported to the Board, as required by Senate Bill 5135:

- University of Washington-Seattle
- University of Washington-Bothell
- University of Washington-Tacoma
- Washington State University-all campuses
- Central Washington University
- Eastern Washington University
- The Evergreen State College
- Western Washington University
- State Board for Community and Technical Colleges

A. Public Four-Year Institutions

Policies Adopted

In their reports, the public baccalaureate institutions wrote about their current academic policies regarding declaring a major, completing a degree, drop/add polices and placing students on academic probation. They also discussed their communication of these policies to students, enforcement of these policies, and policy changes that had been made or were being contemplated.

Baseline Data

Senate Bill 5135 requires institutions to report baseline data on the following: (1) number of students who accumulate more than 125 percent of credits needed to graduate; (2) number of students who drop more than 25 percent of their course credits; and (3) number of students who remain on academic probation for more than one quarter or semester.

1. Number of students who accumulate more than 125 percent of the credits needed to graduate

The institutions provided data to the HECB on the number of students who earned bachelor's degrees and the number who accumulated more than 125 percent of the credits needed for that degree.

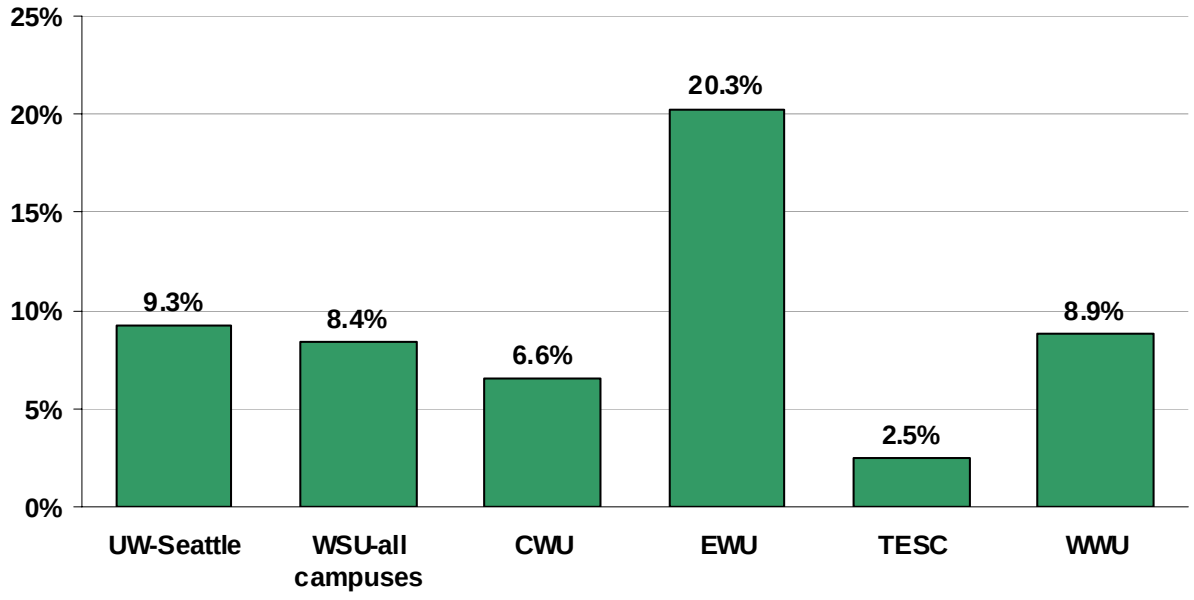
These degree recipients were placed into three categories: (1) students who earned one degree with one major; (2) students who earned one degree with more than one major; and (3) students who earned more than one degree.

For the purposes of this indicator, all credits on the student's transcript were counted. This included all transfer credits, including community college credits, Running Start credits,

Advanced Placement credits, credits earned at private or out-of-state institutions. Thus, credits were counted that may or may not have been applicable to a student's final major and may or may not have been partially subsidized by state funding. This is the broadest definition of "excess" credits and provides the "extreme" case.

As Graph 5 shows, the percentage of graduating students (one degree, one major) with more than 125 percent of the credits necessary for their degree ranged from 2.5 percent at The Evergreen State College to over 20 percent at Eastern Washington University. The University of Washington-Seattle campus, Washington State University-all campuses, and Western Washington University are around 8 to 9 percent, with Central Washington University at 6.6 percent.

Graph 5
Graduating students with more than 125% of the credits needed
Single Degree, One Major
2002-03



Overall, 1,800 students graduated in 2002-03 with more than 125 percent of the credits they needed to obtain their degrees. If on average these students had been able to graduate with one-quarter's fewer credits (15 credits), the savings would have equaled 600 FTEs.

Following are comments from individual institutions:

University of Washington - Seattle

Students with 225 or more academic credits generally have the following characteristics:

- Have higher grade point averages;
- Have substantially more transfer and/or Running Start credits (42 to 44 credits);
- Are more likely to pursue two or more undergraduate degrees;
- Have studied abroad; and
- Reflect the racial and ethnic composition of the student body as a whole.

Washington State University - all campuses

WSU provided the following information about students who graduated with more than 125 percent of the credits they needed:

- These students had a higher average GPA than students with fewer credits (3.27 versus 3.19);
- There was no significant difference between domestic and international students;
- Non-native English speakers, on average, accumulated slightly more credits en route to graduation;
- Students arriving with Running Start credits tended to graduate with over 125 percent of the credits required by their programs. (Running Start students entering WSU directly from high school behave academically like freshmen rather than transfer students. More research needs to be done to determine whether Running Start credits were too often inappropriate for the eventual degree chosen or whether these students viewed Running Start as high school enrichment rather than an early start on college);
- There were no significant differences based on various ethnic backgrounds, gender, or disabilities; and
- Transfer students graduated somewhat less efficiently than non-transfer students. However, a smaller proportion of students at WSU Vancouver and WSU Tri-Cities graduated with excess credits than did Pullman transfer students.

Two types of programs emerged where graduates were most likely to have earned excess credits: (1) a cluster of smaller programs in the arts and design disciplines, and (2) a cluster of programs in science-based programs.

Eastern Washington University

One significant group graduating with excess credits were students who came to Eastern with transfer credits from both community colleges and other four-year institutions. Students earning a bachelor's degree in education were another significant group. These students (1)generally had GPAs of 3.0 and above, and (2) the excess credits directly supported their chosen majors and endorsements.

2. Number of students who drop more than 25 percent of their course credits

The institutions provided data to the HECB on the number of students in 2002-03 who dropped more than 25 percent of their net courseload in a quarter or semester after the 10th day. Dropping after the 10th day generally prevents other students from entering the class to fill the vacancy.

Institution	Percent who dropped 25% or more	Number who dropped 25% or more
UW-Seattle	6.1%	1,519
WSU-all campuses	7.9%	1,461
CWU	7.4%	565
EWU	9.1%	722
TESC	0.5%	20
WWU	5.8%	638

The percentage of students who dropped 25 percent or more of their courseload after the 10th day after registration ranges from 0.5 percent at The Evergreen State College to between 6 and 9 percent at the other institutions. The number of students involved in a quarter or semester totals fewer than 5,000. On an FTE basis, this equates to roughly 1,300 FTEs.

3. Students who remain on academic probation for more than one quarter or semester

The institutions provided data to the HECB on the number of students who were on academic probation for two or more quarters in the last academic year. The number of students on academic probation ranged from 0.3 percent at The Evergreen State College and 0.7 percent at Western Washington University to 1.2 percent at Washington State University and around 2 percent at the other universities. Overall, the total number of students involved is around 1,200 students per year.

Institution	Percent on academic probation	Number on academic probation
UW-Seattle	2.1%	519
UW-Tacoma	2.4%	38
WSU-all campuses	1.2%	218
CWU	1.8%	211
EWU	1.9%	155
TESC	0.3%	12
WWU	0.7%	73

All the institutions have strong policies in place regarding academic probation (see Appendix A). Generally, if students' cumulative GPAs fall below 2.0, students are placed on academic probation. If they do not improve their GPAs in the following quarter or semester, they are suspended or dismissed from the university. If they improve their quarter/semester GPAs, but their cumulative GPAs remain under 2.0, they remain on academic probation. Thus, students who remain on academic probation are showing improvement; they just have not worked themselves out of their hole.

Actions Taken

The institutions reported on actions taken and proposed to eliminate barriers to timely completion of degree programs and to address course-scheduling issues. These actions concerned over-enrolled and "bottleneck" courses, work with transfer students, degree audit review systems, completion of basic skills requirements, and student advising.

B. Community and Technical Colleges

Adoption of Policies and Procedures

The SBCTC adopted a resolution to notify the community and technical colleges of Senate Bill 5135's requirements. A system workgroup was convened that established a set of "College Student Progress Policy Guidelines" to assist colleges in the development of policies and procedures. Each college has submitted to the SBCTC a copy of the policies and procedures developed on their campus. Highlights include:

- **Degree/Certificate Completion:** Intervention strategies focused on providing information and advising were developed. Most of the strategies call for interventions to begin when students reach 85 percent of the credits/clock hours required for degree/certificate completion. Approximately one-half of the institutions will implement surcharges when students have reached 125 percent or 150 percent of the credit/clock hours required for degree/certification completion.

- **Academic Progress:** Most colleges have adopted procedures that call for interventions to target students who do not complete at least 75 percent of the credits/clock hours attempted each quarter.

- **Academic Probation:** College policies outline successive levels of intervention to address students who remain in academic deficiency status, as defined by each institution, for more than one quarter.

- **Eliminating Barriers to Degree/Certificate Completion:** A number of actions were taken to address course-scheduling issues, including: (1) priority registration for those

students closest to graduation; (2) annual course schedules to support students' long-range planning; and (3) development and refinement of Web-based degree audit services.

Baseline Data

System changes to develop the baseline data as requested in SB 5135 are still being developed. In the spring 2003, nearly 3 percent (5,100 students) of the community and technical college students had more than 125 percent of the credits/clock hours they needed for their degrees/ certificates. The SBCTC does not have the ability to identify students who drop more than 25 percent of their attempted courseload. They are developing the programming to allow institutions to identify those students who complete less than 75 percent of the credit/clock hours attempted each quarter.

Policy Recommendations

The SBCTC is recommending a one-year period of study prior to submitting policy recommendations. The Board desires time to work with the colleges to determine progress and assess the numbers and types of students affected and the effects of these practices on system capacity and student academic success.

IV. Staff Summary and Recommendations

Summary Comments

- The four-year institutions and SBCTC are in different stages of adopting and implementing policies that ensure undergraduates complete their programs in a timely manner. Some policies were in place prior to the legislation, some new policies have been adopted, and some policies are still being reviewed.

- Two of the measures identified in SB 5135, excess credits and the dropping of courses, are implicit in the calculation of the Graduation Efficiency Index. This index has been around since 1997 and is used by the institutions as a management tool to identify areas where students are not moving through the system as well as in other areas (e.g., transfer students in the sciences and engineering).

- The dropping of courses at the public baccalaureate institutions bears further evaluation. There is no common benchmark as to whether 7 to 9 percent of the students dropping 25 percent or more of their courses is a low, standard, or excessive amount.

- The issue of student probation appears to be minimal. Adopted policies at the institutions require that students remaining on academic probation be making forward progress; students who do not make progress are dismissed.

- The subject of academic progress is not an issue at The Evergreen State College.

- The community and technical college system, comprised of 34 institutions, will require more time to gather data.

Recommendations

- A single or several broad measures of "efficiency" should be developed and the institutions allowed to manage to meet their goals. What is measured will get some attention; those measures that have fiscal implications will get a lot of attention. For example, enrollment levels are currently the single measure that has fiscal implications and receives the most attention. Accountability measures such as the graduation efficiency index, retention rates, or five-year graduation rates are included in accountability plans, but they have no fiscal implications and get less attention. Any performance measures should recognize the real differences in the missions and programs that exist between the institutions.

- Periodically, it is very useful for institutions to do a thorough review of their policies and practices. SB 5135 should have a positive impact on promoting student progress.

- SB 5135 specifically asks whether increased tuition and fees should be uniformly charged to students as an additional incentive for timely completion of degree and certificate programs. SB 5135 allows institutions to impose a surcharge on students who: accumulate more than 125 percent of the credits they need to complete their degrees/ certificates; drop more than 25 percent of their course load; or remain on academic probation for more than one quarter or semester. The HECB already has a policy that, within constraints, institutions should be allowed local tuition-setting authority. The current provision allowing surcharges should be sufficient, with each institution determining for itself the best practices to reach its goals.

Appendix A

Levels of Academic Probation

	Academic Warning	Probation	Dismissal/Suspension
UW-Seattle	GPA <2.00 first quarter	Cumulative GPA <2.00	Quarter GPA <2.5 while on probation (The practice of routinely reinstating students if they achieved between a 2.0 and 2.5 GPA has been discontinued.)
WSU-all campuses		Cumulative GPA <2.0	Semester GPA <2.0 for 2 consecutive terms or cumulative GPA <2.0 for 2 semesters
CWU	Quarter GPA <2.0	On warning for one quarter and next quarter or cumulative GPA <2.0	On probation for one quarter and next quarter GPA <2.0
EWU		Cumulative GPA <2.0	Quarter GPA <2.0 while on probation
TESC	Earns less than three-fourths of the registered credits in 2 successive quarters; or receives No Credit in any quarter		While in Warning status receives either an Incomplete or fewer than three-fourths of the registered credit
WWU	First-quarter freshmen GPA <2.0	Cumulative GPA <2.0	Cumulative GPA <2.0 or quarterly GPA <2.3 while on probation

WASHINGTON
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March 2004

A New Approach to Higher Education Accountability in Washington

Accountability can be a powerful tool for improvement when its purpose is well-defined and performance indicators are linked to state priorities. Ideally, an accountability system does the following: (1) aligns institutional priorities with state goals, (2) allows students, legislators, leaders of educational institutions, business leaders, and others interested in higher education to view progress toward those goals, and (3) provides a basis for making policy decisions.

Washington's state accountability system has not been reviewed since its creation in 1997. Its purpose is unclear and our current performance indicators seem to have little relation to institutional or state goals.

The 2004 Interim Strategic Master Plan calls for increased accountability by using benchmarks and performance indicators to effectively measure results and strengthening the consistency of higher education data. In a recent policy audit, the National Collaborative for Postsecondary Education Policy reaffirmed the need for a new accountability system, stating that, in Washington, "Accountability is not systematically used to help focus institutional attention on a limited number of state priorities."[1]

The Higher Education Coordinating Board (HECB) currently has the authority to make recommendations for the state's existing accountability system. House Bill 3103, which the Legislature passed, strengthens the HECB's role in accountability. The legislation directs the HECB to "establish an accountability monitoring and reporting system as part of a continuing effort to make meaningful and substantial progress towards the achievement of long-term performance goals in higher education" (Sec. 11).

It is an ideal time to revisit accountability given the new focus on goals for degree production in the 2004 Strategic Master Plan. In order to increase the number of degrees produced, we need to understand the reasons why we are not producing degrees at a rate comparable to other states, and then regularly monitor progress. For example, a commonly used statistic in higher education policy is Washington's ranking of 33rd among the states for the number of bachelor's degrees

[1] The National Collaborative for Postsecondary Education Policy. "A Public Agenda for Higher Education in Washington," February 17, 2004, presented at a work session for the House and Senate Higher Education Committees.

earned.[2] The reasons for our low degree production could be explained with the appropriate performance indicators and information about our state context, and addressed with policy based on that data. This is something that has never been accomplished with our current accountability system.

By revisiting accountability now, we also can synchronize our efforts with the Office of Financial Management's (OFM) "Priorities of Government" activities, which require institutions to develop strategic plans and performance indicators. By May 1, 2004, institutions are required to submit their strategic plans to OFM, with performance measures due later in the summer.

This paper includes (1) a working definition and comprehensive policy for state-level higher education accountability, (2) a discussion of how state-level accountability differs from other forms of accountability, and (3) proposed changes to our existing system. The paper concludes with a recommendation that the state's new accountability system remain flexible and be reviewed on a regular basis.

I. The Purpose of Accountability

The purpose of accountability, broadly speaking, is to motivate institutional performance toward state goals. Ideally, accountability motivates by accurately and consistently informing those interested in higher education of progress toward state goals. Overall, accountability should provide information on the value of public investment in higher education.

A working definition for state-level accountability might look like the following:

"Accountability should provide students, legislators, leaders of educational institutions, business leaders, and others interested in higher education with accurate, consistent information on system-wide progress toward state goals in higher education, including details that support policy development."

Based on that definition, decisions can be made regarding three main components of the accountability system: (1) incentives, (2) reporting, and (3) data.

A. Incentives: Should Funds be Linked to Performance?

In 1997, the Legislature linked institutions' accountability plans and performance to two percent of the non-instructional base budget (about $10.6 million). Since that time, our state has relied on accountability as a reporting tool, but not as the basis for funding decisions.

Accountability is viewed as a punishment when performance based on poorly conceived indicators is used as the basis for funding decisions. Funding decisions based on performance

[2] This statistic specifically relates to Bachelor's degrees earned per 1,000 residents aged 20-29 for the year 2000.

become even more punishing when adequate state funding is not in place to cover existing enrollment.

Since the public institutions in our state are currently over-enrolled without adequate state funding, it would not be appropriate to tie accountability performance to funding. This may change over time, but for the current biennium, at least, accountability should be used as a reporting tool only.

B. Reporting: What type of information should be included in accountability reports?

Context

Washington's current accountability reports do not provide context that might help explain institutional performance and student progress through the educational "pipeline." Many other states include in their accountability reports data on state population demographics, the state economy, state funding per student FTE, per capita income, overall enrollment, and a basic description of educational institutions and the programs they provide. High school test scores, high school graduation rates, and information on affordability (e.g., tuition and financial aid) also would be useful in understanding some of the factors that impact students' college attendance and performance.

Performance Indicators

Our current reports provide annual data for each institution on four indicators common to all the public four-year institutions, as well as on two institution-specific measures:

- [3]Graduation efficiency (freshmen)
- Graduation efficiency (transfers)
- [4]Five-year freshmen graduation rate
- [5]Undergraduate retention
- Faculty productivity (institution-specific)
- Institution-specific measure on any topic

The current measures provide some information on performance toward state goals, but not enough to inform policy or provide an understanding of progress (or the lack of it). Furthermore, they do not provide a basis on which to compare our state performance to other states.

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[3] Graduation efficiency is a measure developed in Washington State to measure credits to degree at baccalaureate institutions rather than time to degree. It is calculated as: Total credits required for degree minus transfer credits, divided by total credits attempted at the baccalaureate institution.

[4] Most other state and national comparisons use six-year graduation rates.

[5] Retention in Washington reflects the percentage of all students enrolled one fall quarter and returning the next. Most other states use the percentage of freshmen who return for their sophomore year, because students are most likely to drop out during that period.

Accountability reports should not be used to judge or compare different institutions within our state, but should provide a state-level look at progress toward state goals and, if possible, compare our performance to the performance of other states. Reporting institutional highlights or special achievements at particular colleges can preserve recognition of the unique nature of our institutions.

Finally, in order for our accountability system to "focus institutional attention on a limited number of state priorities," as recommended by the National Collaborative for Postsecondary Education Policy, the performance indicators we use should be more closely aligned with state goals and with the strategies used to achieve those goals.

C. Data: What type of data should be provided to the HECB for accountability reporting?

The HECB currently receives accountability data as a series of reports from the institutions that is summarized at a high level. However, accountability data should be detailed enough to inform state-level policymakers of specific areas where improvement is needed. While a micro level of performance does not need to be reported every year to all audiences, it should be available for informing policy decisions. This means that the data available to the HECB should include a breakdown by student age, gender, race/ethnicity, state region, and curriculum area (major). Such data should encompass student achievement throughout the academic "pipeline," from K-12 preparation and transfer to application, admission, and graduation at a four-year institution.

II. Differences between State Accountability and Other Types of Accountability

If other forms of accountability exist, why should we develop yet another system? Accreditation, assessment, and performance contracts are similar to state-level accountability but do not serve the same purpose.

Accreditation

Accreditation requires information from institutions regarding graduation rates, admissions, and other areas similar to state-level accountability. Yet detailed accreditation results are usually confidential, and accreditation is used to assess institutions, not to measure progress toward state goals.

Assessment

Assessment usually refers to student learning. The *Measuring Up* reports, which compare states on comparable measures, gave failing grades to all states in the measurement of student learning. The institutions, however, continue to work on a project to measure learning that began in the 1997-99 biennium. Assessment of student learning could potentially be included in state accountability reports, but is not developed enough at this point to include.

Performance Contracts

Performance contracts as pilot projects have received a great deal of legislative interest. Basically, they offer institutions the opportunity to "trade" a specified level of performance for freedom from existing restrictions, or incentive funding. As discussed earlier, incentive funding would be a difficult option to consider since adequate base funding is not available to meet current enrollment demand. Tuition-setting authority would most likely be a preferred "reward" for performance in a performance contract.

Performance contracts could actually require more, not less, accountability from the institutions. Thus, they are a form of accountability. However, as pilot projects, they would be specific to the institutions that participate and would not provide the kind of state-level information necessary to view progress toward state goals. In addition, accountability should be an ongoing, regular activity that continues regardless of the rewards involved.

III. A Plan for Redesigning Accountability to Meet State Needs

The involvement of the public colleges and universities is crucial if accountability reporting is to be used as an improvement tool. After all, if the institutions do not believe the measures used are relevant, how can these measures be used to motivate? The following three steps outline a basic approach to redesigning our accountability system, but institutional involvement will be required at every step if accountability reporting is to have any impact on improved performance.

Step 1: Define the Purpose of State-Level Accountability

As discussed in a previous section of this paper, the purpose of accountability could be defined as follows:

"Accountability should provide students, legislators, leaders of educational institutions, business leaders, and others interested in higher education with accurate, consistent information on system-wide progress toward state goals in higher education, including details that support policy development."

Step 2: Align Performance Indicators with State Goals

The 2004 Interim Strategic Master Plan lists specific goals for higher education and strategies to achieve them by 2010.

Goals

(1) Increase by about 20 percent the total number of students who earn college degrees and job training credentials in Washington.
(2) Respond to the state's economic needs.

Strategies

- Increase enrollment
- Improve educational efficiency
- Promote innovation in service delivery
- Address funding, tuition, and financial aid (affordability)
- Improve higher education's responsiveness to the state's economic needs
- Improve K-12/higher education linkages to promote student success in college

A group of institutional researchers and academic planners are working with HECB staff to develop performance indicators that measure progress toward achieving these goals and strategies. The results of this work will be presented to the HECB at the July 22 Board meeting.

Step 3: Collect Data that Measures Performance Toward State Goals and Provides a Basis for Policy Decisions

Some new data may need to be collected in order to provide the information needed to measure progress toward state goals. For example, employment information is not currently available for students graduating from four-year institutions (although it is available for students from two-year colleges). House Bill 3103 directs the Board to convene a new data advisory group to help researchers obtain new information.

In the meantime, the same group of staff working on the development of performance indicators is also working on a list of data elements to support the HECB's reporting and policy needs.

IV. Other Issues

Inclusion of Private Institutions

Data about private institutions are not currently included in state accountability reports. Yet the important role private institutions play in providing access to higher education should be considered in the analysis of statewide enrollment capacity, program supply, and degree production. Currently, private institutions participate in publicly funded financial aid programs and report data on students receiving need-based aid. We also have access to some private institution data through national surveys. Additionally, our accountability report should include data about the private institutions according to the extent of their participation in publicly funded programs.

Keeping Accountability Flexible

As new measures and priorities emerge, our accountability system should change. Assessments of student learning, inclusion of private institutions, and employment data will change the picture that the HECB, working with the institutions, can provide to the public and others interested in higher education. Accountability should be monitored at least once every two years to ensure that it is meeting its purpose.

V. Next Steps

Institutional representatives will be invited to provide feedback at the March 25 Board meeting. As mentioned previously, HECB staff are working with a group of institutional researchers and academic planners appointed by the provosts to develop proposed performance indicators and data requirements. The group's final recommendations will be presented at the Board's July 22 meeting.